Navajo Nation Domestic Wastewater Regulations

Proposed Revisions June 5, 2023

Domestic Wastewater Program
Navajo Nation Environmental Protection Agency
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NAVAJO NATION DOMESTIC WASTEWATER REGULATIONS

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PART I GENERAL PROVISIONS

§ 101. Title

These regulations may be cited as the Navajo Nation Domestic Wastewater Regulations ("NNDWWR").

§ 102. ~~Authority~~

~~These regulations are adopted pursuant to the Watershed Protection Program established in Subchapter 8 of the Navajo Nation Clean Water Act ("NNCWA"). This statute authorizes the Navajo Nation Environmental Protection Agency ("NNEPA") to "develop a program to protect surface and ground water from pollution on a watershed basis, taking into account impacts on water quality from a variety of sources and considering cumulative impacts as well as discrete instances of contamination." 4 N.N.C. § 1371 (NNWCA § 801).~~

~~§ 103. Effective Date~~

~~1. These regulations shall be effective upon formal approval by the Navajo Nation Resources and Development Committee.~~

~~§ 104.~~ Purpose

These regulations seek to promote the health and welfare of the Navajo people and to protect the environment by establishing a design review and permitting program for the construction, installation, alteration, repair, extension, operation, and maintenance of ~~domestic~~ wastewater treatment systems.

§ 103. Scope

A.

~~§ 105. Applicability~~

These regulations ~~shall apply to~~are divided into the following parts:

1. Part I contains general requirements for all ~~domestic~~ wastewater treatment systems ~~serving homes, communities, businesses, institutions and~~ .

2. Part II contains permit requirements for the construction of all wastewater treatment systems other ~~establishments that are served by public water systems within the jurisdiction of NNEPA. In addition, these regulations shall apply to~~ than small capacity on-site wastewater treatment systems.

3. Part III contains permit requirements for the operation of all wastewater treatment systems other than small capacity on-site wastewater treatment systems.

4. Part IV establishes the general permit requirements for the construction and operation of all small capacity on-site wastewater treatment systems.

5. Part V contains minimum design requirements for all categories of wastewater treatment systems. Subpart A contains general provisions applicable to all wastewater treatment systems. Subpart B contains provisions applicable to municipal wastewater treatment facilities. Subpart C contains provisions applicable to wastewater lagoon systems. Subpart D contains provisions applicable to on-

site wastewater treatment systems.

6. Part VI contains operator certification provisions for all wastewater treatment systems other than small capacity on-site wastewater treatment systems.

7. Part VII contains septage removal and transportation requirements.

8. Part VIII contains the fee schedule for construction permits, operating permits, operator certifications, and septage removal and hauling licenses.

9. Part IX contains requirements for the provision and use of reclaimed water and reclaimed industrial wastewater. It is the only part of these regulations that covers more than domestic wastewater. It does not apply to small capacity on-site wastewater treatment systems. It applies to large capacity wastewater treatment systems only if they discharge into a surface pond.

§ 104. Authority, Program Administration, Existing Laws

A. Authority

These regulations ~~that~~ are ~~not served by a public water system, but are instead located within a delineated wellhead protection area~~promulgated pursuant to the general authorities under the Navajo Nation Clean Water Act ("NNCWA"), 4 N.N.C. §§ 1301 *et seq.*, and the Navajo Nation Safe Drinking Water Act ("NNSDWA"), 22 N.N.C. §§ 2501 *et seq*. In addition, NNCWA § 1371 authorizes NNEPA to "develop a program to protect surface and ground water from pollution on a watershed basis, taking into account impacts on water quality from a variety of sources and considering cumulative impacts as well as discrete instances of contamination." NNCWA § 1333 authorizes NNEPA to "establish regulations specifically establishing terms, limitations and conditions, including notification requirements, applicable to septage haulers;" and NNSDWA § 2538(A) requires NNEPA to "develop by regulation a program to protect wellhead areas within the Navajo Nation from contaminants that may have an adverse effect on public health" by identifying sources of contaminants in those areas.

B. Program Administration

The Domestic Wastewater Program ("DWWP") is responsible for administering these Domestic Wastewater Regulations. The Director may delegate the responsibility for the preparation and issuance of permits and licenses authorized under these regulations and for their implementation and enforcement to a Navajo Nation Chapter, provided that the Chapter meets the minimum criteria established by the DWWP pursuant to these regulations.

C. Delegation of Authority to Chapters

1. The President of a Chapter desiring to obtain delegated authority to prepare and issue permits and licenses authorized under these regulations and for their implementation and enforcement shall submit to the Director a full and complete delegation application. The Director will determine whether the package is complete within thirty (30) days of receipt. Within ninety (90) days, the Director will render a decision to approve or disapprove the program. An extension for the review period may be provided if agreed to by the Director and President.

2. Application for delegated authority must include the following minimum information:

   a. a letter from the Chapter President requesting review and approval of the application;

b. a program description; and

c. a memorandum of agreement ("MOA") with NNEPA to implement the program.

3. If the Director approves the Chapter program, a public review, comment period, and, if applicable, a public hearing will be held in accordance with Uniform Rules §§ 402-410.

4. A Chapter may receive authorization for one or more of the Domestic Wastewater Program components. DWWP retains authorization for the program components for which a Chapter is not authorized. If DWWP approves a Chapter program, the Chapter shall assume permitting authority for that program. Submission of all new permit and license applications will go to the Chapter for issuance and all associated fees will go to the Chapter to administer the program. Transition of permits issued prior to authorization shall be set forth in the MOA.

5. Any Chapter program approved under this section shall implement and enforce its program in accordance with these regulations and any guidance documents issued by the Director. The Director may rescind the delegation of authority if the Director finds the program is non-compliant, but only after providing the Chapter President notice and no fewer than thirty (30) days to cure the non-compliance.

D. Existing laws

1. These regulations are intended to complement existing statutory provisions and regulatory programs impacting Waters of the Navajo Nation, including but not limited to the Navajo Nation Clean Water Act, Navajo Nation Safe Drinking Water Act, Navajo Nation Water Code, Navajo Nation Solid Waste Code, Navajo Nation Underground Injection Control Regulations, Navajo Nation Surface Water Quality Standards, and Navajo Nation Primary Drinking Water Regulations~~, Part XVII, Wellhead Protection Regulations.~~ .

2. The NNEPA may coordinate with the entities implementing the requirements listed in this regulation and with other programs and agencies to the extent relevant and appropriate to protect Waters of the Navajo Nation and Navajo aquifers.

§ 105. Effective Date

These regulations shall be effective upon approval by the Navajo Nation Resources and Development Committee.

§ 106. Definitions

A. For purposes of these regulations:

1. "Administrator" means the Administrator of the U.S. Environmental Protection Agency.

2. "Absorption area" means the area in square feet of infiltrative surface in an absorption system.

3. "Absorption bed" means an absorption system consisting of a covered, gravel-filled bed into which septic tank effluent is discharged through specially designed distribution pipes for seepage into the soil.

4. "Absorption system" means a device constructed to receive and to distribute effluent such that the effluent is effectively filtered and retained below ground surface.

5. "Absorption trench" means standard trenches, shallow trenches with capping fill, and chambered trenches, all constructed to receive and to distribute effluent such that the effluent is effectively filtered and retained below ground surface. "Aggregate" means a clean graded hard rock, volcanic rock, or gravel of uniform size, between ¾ inch and 2½ inches in diameter, offering thirty percent (30%) or more void space, washed or prepared to be free of fine materials that would impair absorption surface performance, and having a hardness value of three or greater on the Mohs scale of mineral hardness (can scratch a copper penny).

6. "Aggregate" means a clean graded hard rock, volcanic rock, or gravel of uniform size, between ¾ inch and 2½ inches in diameter, offering thirty percent (30%) or more void space, washed or prepared to be free of fine materials that would impair absorption surface performance, and having a hardness value of three or greater on the Mohs scale of mineral hardness (can scratch a copper penny).

~~6.~~7. "ASTM" means ASTM International, originally known as the American Society for Testing and Materials), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428-2959.

~~7.~~8. "Bedrock" means the more or less solid, undisturbed rock in place either at the ground surface or beneath surficial deposits of gravel, sand or soil; or a consolidated rock formation of impervious material that may exhibit jointed, fractured, or deteriorated characteristics; or the R horizon of a soil profile as defined in U.S. Department of Agriculture soil survey manuals.

~~8.~~9. "Bedroom" means any portion of a dwelling ~~which~~that is ~~so~~ designed so as to furnish the minimum isolation necessary for use as a sleeping area. It may include, but is not limited to, a den, study, sewing room, sleeping loft, or enclosed porch. Unfinished basements shall be counted as a minimum of one additional bedroom.

~~9.~~10. "BOD5," or the "5-day biochemical oxygen demand," means the amount of oxygen required to stabilize biodegradable organic matter under aerobic conditions within a 5-day period in accordance with the Standard Methods for the Examination of Water and Wastewater. "Total 5-day biochemical oxygen demand" ("TBOD5") is equivalent to BOD5 and is sometimes used in order to differentiate carbonaceous plus nitrogenous oxygen demand from strictly carbonaceous oxygen demand, or CBOD5.

~~10.~~11. "Building sewer" means the pipe that carries wastewater from the building drain to a public sewer, an on-site wastewater system, or other point of disposal. It is synonymous with "house sewer."

~~11.~~12. "CBOD5," or the "carbonaceous 5-day biochemical oxygen demand" means BOD5 less the nitrogenous oxygen demand of the wastewater.

~~12.~~13. "Cesspool" means a drywell with an open bottom and/or perforated sides that receive untreated wastewater.

~~1. "Certified operator" or "operator" means an individual who holds a current certificate issued by the Director to operate one of the classifications of wastewater collection and conveyance systems.~~

~~13.~~14. "Chapter," when used with reference to a governmental unit, means those community organizations duly certified and recognized as ~~such~~chapters by ~~the~~ Navajo Nation Council Resolution ~~in~~ CAP-34-98, which enacted the Navajo Nation Local Governance Act.

~~14.~~15. "Clean Water Act" ("CWA") means the Federal Water Pollution Control Act of 1972, as amended, 33 U.S.C. ~~§~~§§ 1251 *et seq*.

~~15.~~16. "Condominium" means the ownership of a single unit in a multi-unit residential development, together with a common interest (along with the development's other owners) in the common areas and facilities of the development.

~~16.~~17. "Conventional system" means an onsite wastewater system consisting of a building sewer, a septic tank, and an absorption system.

~~17.~~18. "Design flow" means the daily flow rate a wastewater system or its components are designed to accommodate on a sustained basis while satisfying all applicable requirements. Design flow either incorporates or is used together with appropriate peaking and safety factors to ensure sustained and reliable operations.

~~18.~~19. "Director" means the Executive Director of NNEPA or his/her designee or authorized representative.

~~19.~~20. "Disinfection" means the process of destroying pathogenic and other microorganisms in wastewater, typically through application of chlorine compounds, ultraviolet light, iodine, ozone, and the like.

~~20.~~21. "Disposal Area" means the entire area used for the subsurface treatment and dispersion of septic tank effluent by an absorption system.

~~21.~~22. "Distribution box" means a watertight structure that receives septic tank effluent and distributes it concurrently, in essentially equal portions, into two or more distribution pipes leading to an absorption system.

~~22.~~23. "Distribution pipe" means ~~an approved~~a perforated pipe ~~used~~approved for use to disperse septic tank effluent into an absorption system.

~~23.~~24. "Domestic septage" means the liquid or semi-liquid material ~~which~~that is pumped from ~~septic tanks~~a septic tank, self-contained toilet, marine sanitation device, or similar system receiving only domestic wastewater. ~~It consists of the sludge, the liquid, and the scum layer of the septic tank.~~ Domestic septage does not include commercial or industrial wastewater or restaurant grease-trap wastes.

~~24.~~25. "Domestic wastewater" means a combination of water-carried wastes from residences, commercial buildings, institutions, and other establishments with installed plumbing, ~~which~~that has originated from activities such as restroom usage, washing, bathing, food preparation, and laundry. Domestic wastewater is synonymous with the term "sewage." For the purpose of these regulations, "wastewater" shall mean domestic wastewater unless specified otherwise.

~~25.~~26. "Drainage system" means all the piping within public or private premises that conveys domestic wastewater to a legal point of treatment and disposal.

~~26.~~27. "Drop box" means a watertight structure that receives septic tank effluent and distributes it into one or more distribution pipes, or into an overflow leading to another drop box and absorption system located at a lower elevation.

~~27.~~28. "Drywell" means a well, other than an improved sinkhole or subsurface fluid distribution system, that is completed above the water table so that its bottom and sides are typically dry except when receiving fluids.

~~28.~~29. "Dwelling" means any structure, building, or ~~any~~ portion thereof that is used, intended, or designed ~~to be occupied~~ for human ~~living purposes~~occupancy, including, but not limited to, houses, mobile homes, hotels, motels, apartments, businesses, and industrial establishments.

~~29.~~30. "Earth fill" means excavated or otherwise disturbed soil, suitable for embankment construction, that is imported and placed over the native soil. It is characterized by its lack of distinct horizons or color patterns, ~~as~~unlike those found in ~~naturally developed~~ undisturbed soils.

~~30.~~31. "Effluent lift pump" means a pump used to elevate septic tank effluent to a disposal area at a higher elevation than the septic tank itself.

~~31.~~32. "Ejector pump" means a device to elevate or pump untreated sewage to a septic tank, public sewer, or other means of disposal.

33. "Existing ~~domestic~~ wastewater treatment system" means a ~~domestic~~ wastewater ~~disposal~~treatment system in operation on the effective date of these regulations ~~or, for purposes of compliance with~~.

~~32.~~34. "Filtration" means a ~~revised NNDWWR, on the effective date of the revision~~treatment process that removes particulate matter from wastewater by passage through porous media.

~~33.~~35. "Freeboard" means the vertical distance from the highest water level in a sewage lagoon to the top of the lagoon's side berm or dike.

~~34.~~36. "Groundwater" means subsurface water in the zone of soil saturation.

~~35.~~37. "Groundwater table" means the surface of a body of unconfined groundwater in which the pressure is equal to that of the atmosphere.

~~36.~~38. "Groundwater table, perched" means unconfined groundwater separated from an underlying body of groundwater by an unsaturated zone (perching bed), which constitutes a restrictive ~~strata~~stratum or impervious layer. Perched groundwater may be either ~~be~~ permanent, where recharge is frequent enough to maintain a saturated zone above the perching bed, or temporary, where intermittent recharge is not great or frequent enough to prevent the perched water from disappearing from time to time as a result of drainage over the edge of (or through) the perching bed.

~~37.~~39. "Holding tank" means a non-discharging watertight tank designed to receive and retain wastewater for periodic pumping and disposal off-site.

~~38.~~40. "Household hazardous waste" means a wide range of household products having the characteristics of hazardous waste ~~when discarded and the potential to disrupt wastewater~~

~~treatment systems~~(as that term is defined in the federal Resource Conservation and Recovery Act, 42 U.S.C. §§ 6941 *et seq.*) when discarded, including but not limited to pesticides and herbicides; oil-based paints and stains; automobile fluids (such as antifreeze, motor oil, ~~and~~ gasoline, and transmission, steering, and brake fluids); and pool, hobby, and darkroom chemicals.

~~39.~~41. "Impervious strata" means a layer of earth that prevents or slows water or root penetration and has a percolation rate greater than sixty (60) minutes per inch.

~~40.~~42. "Invert" means the lowest portion of the internal cross-section of a pipe or fitting.

43. "Large capacity on-site wastewater treatment system" means an on-site wastewater treatment system that has the capacity to serve twenty (20) or more persons per day from multiple residential dwellings or a non-residential establishment, including but not limited to a business establishment or community center.

~~41.~~44. "Lateral" means a secondary pipeline branching directly from a main pipeline.

~~42.~~45. "Leachate" means water that collects contaminants as it trickles through wastes.

~~43.~~46. "Liner" means a manufactured or naturally ~~-~~occurring substance that restricts seepage to fewer than 550 gallons per acre per day.

~~44.~~47. "Liquid capacity" means the volume of liquid that a septic tank or treatment unit can hold as measured from the invert of the outlet. This volume is calculated by multiplying the tank's inside length by its inside width by its depth (as measured from the invert of the outlet to the floor of the tank) and converting the resulting product to gallons.

~~45.~~48. "Load" or "loading" means:

a. in the context of a biological or chemical load, the amount of material applied to a treatment unit per unit area or unit volume; or

b. in the context of a structural load, the force applied to a treatment unit per unit of surface area.

~~46.~~49. "Lot" means a portion of a subdivision, or any other parcel of land, including a home site lease or business site lease, intended as a unit for transfer of ownership or for development, or both, and excluding any part of the right-of-way of a street or road.

~~47.~~50. "Malfunctioning system" or "failing system" means a ~~domestic~~ wastewater treatment system that is not functioning in compliance with these regulations, and includes, but is not limited to:

a. absorption systems that seep or flow to the surface of the ground or into ~~waters~~Waters of the Navajo Nation;

b. systems that are overflowing from any of their components;

c. systems that, due to failure to operate them in accordance with their designed operations, cause backflow into any portion of a building's plumbing;

d. systems discharging effluent that does not comply with applicable effluent discharge standards; and

e. leaking septic tanks.

~~48.~~51. "Maximum groundwater table" means the highest elevation that the top of the "groundwater table" or "groundwater table, perched" is expected to reach, for any reason, over the full operating life of the on-site wastewater system at that site.

~~49.~~52. "Municipal wastewater treatment facility" means a publicly ~~-~~owned treatment works ("POTW") that treats domestic wastewater~~, as defined below.~~.

~~50.~~53. "National Pollutant Discharge Elimination System" ("NPDES") means the regulatory program operated under CWA §§ 307, 318, 402, and 405 (including pretreatment and sludge management) and under Subchapters 3, 4, and 5 of the NNCWA.

~~51.~~54. "Navajo Nation" or "Nation" means:

a. when referring to the body politic, except as the context may otherwise require, the same meaning as set forth in 1 N.N.C. § 501; or

b. when referring to territorial jurisdiction, all lands and waters within the territorial boundaries of the Navajo Nation, including:

i. all lands and waters within the exterior boundaries of the Navajo Indian Reservation or of the Eastern Navajo Agency or within the boundaries of Navajo dependent Indian communities, including all lands within the boundaries of Navajo chapter governments, all without regard to the nature of title thereto;

ii. all lands and waters held in trust by the United States, or restricted by the United States, or otherwise set apart under the superintendence of the United States, for the use of the Navajo Nation, the Navajo Tribe, any Band of Navajo Indians, or any individual Navajo Indians as such; and

iii. all other lands and waters over which the Navajo Nation may exercise governmental jurisdiction in accordance with federal or international law.

~~52.~~55. "Navajo Nation Clean Water Act" ("NNCWA"), 4 N.N.C. §~~§§~~ 1301 *et seq.*, means the statute enacted by the Navajo Nation Council to prevent, reduce, and eliminate pollution of the ~~waters~~Waters of the Navajo Nation.

~~53.~~56. "Navajo Nation Environmental Protection Agency" ("NNEPA") means the environmental regulatory agency of the Navajo Nation government, established by the Navajo Nation Council and charged with protecting human health, welfare, and the environment of the Navajo Nation.

~~54.~~57. "Navajo Nation Primary Drinking Water Regulations" ("NNPDWR") means those regulations adopted pursuant to the Navajo Nation Safe Drinking Water Act ~~for the purpose of establishing~~

~~appropriate water~~to establish drinking water quality standards ~~to~~that ensure that drinking water on the Navajo ~~drinking water~~Nation is safe for human consumption.

~~55.~~58. "Navajo Nation Safe Drinking Water Act" ("NNSDWA"), 22 N.N.C. ~~§~~§§ 2501 *et seq.*, means the statute enacted by the Navajo Nation Council to ensure that drinking water is safe for human consumption and to protect underground sources of drinking water from potential contamination by underground injection activities.

~~56.~~59. "Non-domestic wastewater" means process wastewater originating from the manufacture of specific products. Because contaminants in such wastewater are usually more concentrated and more variable in content and rate than contaminants in domestic wastewater, non-domestic wastewater requires different and often more extensive ~~or different~~ treatment than domestic wastewater.

~~57.~~60. "Non-public water source" means a culinary water source that is not defined as a public water source.

~~58.~~61. "On-site wastewater treatment system" means a conventional septic tank system or alternative system installed at a site to treat and dispose of domestic wastewater and ~~which~~that is not designed to serve multiple dwelling units owned by separate individuals (except condominiums). An on-site wastewater treatment system usually consists of a building sewer, a septic tank, and an absorption system.

~~59.~~62. "Percolation rate" means the time expressed in minutes per inch required for water to seep into saturated soil at a constant rate during a percolation test.

~~60.~~63. "Percolation test" means the method used to measure the percolation rate of water into soil as described in these rules.

~~61.~~64. "Permeability" means the rate at which a soil, when saturated, transmits water.

~~62.~~65. "Permit" means written approval from NNEPA to construct, install, modify, or operate a wastewater treatment system.

~~63.~~66. "Permittee" means any owner ~~or,~~ operator, or person in control of a permitted wastewater treatment system.

~~64.~~67. "Person" means the Navajo Nation or any agency, entity or institution thereof, any chapter, township, political subdivision, public or private corporation, individual, partnership, association, federal agency, state, Indian Tribe, ~~any~~ interstate or intertribal body, municipality, commission or political subdivision of a state~~,~~ or other entity, and includes any officer or governing or managing body of any chapter, township, political subdivision, or public or private corporation.

~~65.~~68. "Pollution" means any manmade or man-induced alteration of the chemical, physical, biological, or radiological integrity of any ~~waters~~Waters of the Navajo Nation, unless the alteration is necessary for public health and safety.

~~66.~~69. "Pollutant" means "waste," as defined below.

~~2. "Population served" means actual or estimated maximum number of persons served by the domestic wastewater system.~~

~~67.~~70. "Pretreatment" means reduction of the amount of pollutants, elimination of pollutants, or alteration of pollutant properties in wastewater before or instead of discharging or otherwise introducing pollutants into a publicly ~~-~~owned treatment works.

~~3. "Pretreatment program" means the program operated by NNEPA or any POTW, whose program has been approved either by the Director or the Administrator, to implement national pretreatment standards to control pollutants which pass through or interfere with treatment processes in a POTW or which may contaminate sewage sludge.~~

~~68.~~71. "Primary treatment" means the first stage of wastewater treatment, which removes settleable or floating solids. The primary treatment units may include screens, a grit chamber, and/or a sedimentation tank.

~~4. "Professional development hour" or "PDH" means one hour of participation in an organized educational activity related to engineering, biological or chemical sciences, a closely related technical or scientific discipline, or operations management.~~

~~5. "Process control" means the process where, includes but not limited to, monitoring, decision-making, operating, maintaining, repairing, and upgrading wastewater facilities.~~

~~69.~~72. "Public health hazard" means a condition characterized by the presence of sufficient types and amounts of biological, chemical, or physical agents relating to water or sewage to be likely to cause human illness, disorders, or disability. Such agents include, but are not limited to, pathogenic viruses and bacteria, parasites, toxic chemicals, and radioactive isotopes. A malfunctioning on-site wastewater system constitutes a public health hazard.

~~70.~~73. "Publicly owned treatment works" ("POTW") means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature that is owned by the Navajo Nation, its political subdivisions or entities, or a state, municipality, or other tribe. The term does not include any POTW owned or operated by the United States.

~~71.~~74. "Public water source" means a water source connected to a public water system.

~~72.~~75. "Public water system" means a "public water system" as defined in NNPDWR § 104.

~~73.~~76. "Public Water Systems Supervision Program" ("PWSSP") means the NNEPA program that is responsible under the NNSDWA for regulating public water systems within the Navajo Nation.

~~6. "Qualifying discipline" means engineering, biology, chemistry, or a closely related technical or scientific discipline.~~

~~7. "Qualifying experience" means experience, skill, or knowledge obtained through employment that is applicable to the technical or operational control of all or part of a wastewater system.~~

~~74.~~77. "Replacement area" means sufficient land with suitable soil, excluding streets, roads, and permanent structures, that ~~comply~~complies with the setback requirements of these regulations and

~~are~~is intended for the complete replacement of an absorption system.

~~75.~~78. "Restrictive layer" means a soil layer that because of its structure or low permeability does not allow water entering from above to pass through the soil layer as rapidly as it accumulates. During some part of every year, a restrictive layer is likely to have a perched groundwater table temporarily accumulated above it.

~~76.~~79. "Schedule of compliance" or "compliance schedule" means a schedule of remedial measures, including an enforceable sequence of actions or operations leading to compliance with these regulations.

~~77.~~80. "Scum" means a mass of sewage solids floating on the surface of wastewater in a septic tank, which is buoyed by entrained gas, grease, or other substances.

~~78.~~81. "Seasonal high groundwater table" means the free surface representing the highest point of groundwater rise within an aquifer due to seasonal changes in the water table over a year.

~~79.~~82. "Secondary treatment" means the second stage of wastewater treatment, following the primary treatment, which converts dissolved and suspended pollutants into a form more readily separated from water and thereby produces a highly treated effluent meeting the requirements of these regulations. Secondary ~~treatments~~treatment may utilize biological treatment processes such as activated sludge or trickling ~~filter.~~filters. Numeric standards for secondary treatment are provided at § 506(B)(1).

~~80.~~83. "Seepage pit" means an absorption system consisting of a covered pit into which septic tank effluent is discharged.

84. "Self-contained toilet" means a fixed or transportable toilet consisting of a seat and cover over a riser which connects to a compartment or vault that contains or may receive a chemical solution or composting materials.

85. "Septage" means both the liquid/semi-liquid and the solid material pumped from a septic tank, cesspool, or other primary treatment source.

86. "Septage receiving facility" means a wastewater treatment system that accepts septage for treatment or storage.

87. "Septic service professional" means a person who provides operational, maintenance, and service activities and meets the certification requirements of § 305(B)(14)(b) of these regulations.

~~81.~~88. "Septic tank" means a watertight receptacle ~~which~~that receives the discharge of a sewer system or a part thereof, designed and constructed so as to retain solids, digest organic matter through a period of detention, and ~~allows~~allow the liquids to discharge into the soil outside the tank through an absorption system meeting the requirements of these regulations.

~~82.~~89. "Septic tank effluent" means partially treated sewage ~~which~~that is discharged from a septic tank.

~~83.~~90. "Setback" means the minimum horizontal distance to be maintained between a feature of a ~~domestic~~ wastewater treatment system and a potential point of impact.

~~84.~~91. "Sewage" means domestic wastewater, as defined above.

~~85.~~92. "Sewage holding tank" means a watertight receptacle ~~which~~that receives water-carried wastes from the discharge of a sewage system and retains such wastes until their removal and subsequent disposal at an approved site or wastewater treatment system.

~~8. "Sewage sludge" means solid, semi-solid, or liquid residues generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solid removed in primary, secondary, or tertiary wastewater treatment processes; and 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 the preliminary treatment of domestic sewage in a treatment works.~~

~~86.~~93. "Sewer system" means ~~the same as~~a "wastewater collection and conveyance system," as defined below.

~~87.~~94. "Shall" means required.

~~88.~~95. "Should" means recommended or preferred.

~~89.~~96. "Single-family dwelling" means a building, together with accessory buildings, that is designed to be used as a home by the owner or lessee of such building and that is located on a lot that contains no other dwellings.

~~90.~~97. "Sludge" means accumulated solids ~~which~~that have settled in a septic tank, a sewage holding tank, a wastewater lagoon, or a treatment unit.

98. "Small capacity on-site wastewater treatment system" means an on-site wastewater treatment system having the capacity to serve a single-family residence or fewer than twenty (20) persons per day at a non-residential establishment, including but not limited to a business establishment or community center.

~~91.~~99. "Soil exploration pit" means an open pit dug to permit examination of the soil to evaluate its suitability for an absorption system.

~~92.~~100. "Standard trench" means an absorption system consisting of a series of covered, gravel-filled trenches into which septic tank effluent is discharged, through specially designed distribution pipes, for seepage into the soil.

~~9. "Storm water" means storm water runoff, snowmelt runoff, and surface runoff and drainage.~~

~~93.~~101. "Substantial modification" means a modification to a wastewater treatment system that changes its capacity or hydraulic condition, the operation of treatment units, the wastewater treatment process, or the quality of the treated wastewater (effluent).

~~10. "Supervision" means the coordination, direction, oversight, or inspection of the operation of wastewater system; the term "supervision" does not include the operation of monitoring equipment from a distant remote location.~~

~~94.~~102. "Tertiary treatment" means advanced treatment beyond secondary treatment, including but not limited to filtration; removal of nutrients (nitrogen and phosphorus), toxic chemicals or metals; the addition of chlorine; and oxygenation.

~~95.~~103. "Total suspended solids" ("TSS") means the measurable component of solid matter suspended in water or wastewater.

~~96.~~104. "Treatment unit" means a component or unit of a wastewater treatment system that represents a distinct process(es) of treatment. Examples of treatment units include but are not limited to sedimentation, aeration, trickling filters, chlorination, wastewater lagoons, absorption systems, and septic tanks.

~~97.~~105. "Treatment works" means a plant, device, unit process, or other works, regardless of ownership, used for treating, stabilizing, or holding domestic wastewater in a wastewater treatment facility or on-site wastewater treatment system.

~~98.~~106. "Uniform Rules" means the NNEPA Uniform Regulations for Permit Review, Administrative Enforcement Orders, Hearings, and Rulemaking under Navajo Nation Environmental Acts.

~~99.~~107. "Waste~~" or "pollutant~~" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, ~~sewage sludge~~septage, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

~~100.~~108. "Wastewater" means "domestic wastewater."

~~101.~~109. "Wastewater collection and conveyance system" means a system of pipelines, conduits, manholes, pumping stations, force mains, and all other structures, devices, and appurtenances that collect, contain, and convey domestic wastewater from its sources to the entry of a wastewater treatment facility or an on-site wastewater treatment system.

~~102.~~110. "Wastewater lagoon" means a surface impoundment made by excavation or earth fill for biological treatment of wastewater.

~~103.~~111. "Wastewater lagoon system" means a wastewater treatment facility consisting of a number of wastewater lagoons (normally three or more) connected in series.

~~104.~~112. "Wastewater treatment facility" or "WWTF" means a plant or system for domestic wastewater treatment and disposal that consists of treatment works, disposal works and appurtenant pipelines, conduits, pumping stations, and related subsystems and devices. A wastewater treatment facility includes a municipal wastewater treatment facility and a wastewater lagoon system~~,~~ but does not include any on-site wastewater treatment system or any components of a wastewater collection and conveyance system.

~~105.~~113. "Wastewater treatment system" or "WWTS" means a wastewater treatment facility, a wastewater collection and conveyance system, ~~and/~~or an on-site wastewater treatment system.

~~106.~~114. "Waters of the Navajo Nation" means all surface waters, including but not limited to ~~portions of rivers, streams (including~~ perennial, intermittent, and ephemeral portions of rivers, streams~~ and their tributaries),~~ lakes, ponds, dry washes, marshes, waterways, wetlands, mudflats, sandflats, sloughs, prairie potholes, wet meadows, playa lakes, impoundments, riparian areas, springs, tributaries and all other bodies or accumulations of water, surface, natural or artificial, public or private, including those dry during part of the year, that are within ~~or border~~ the Navajo Nation. This definition shall be interpreted as broadly as possible to include all waters that are currently used, were used in the past, or may be susceptible to use in interstate, intertribal or foreign commerce. Consistent with federal requirements, the Director may exclude from ~~waters~~Waters of the Navajo Nation certain waste treatment systems.

115. "Wellhead protection area" has the same meaning as set forth in the NNSDWA, 4 N.N.C. § 2538(B).

~~107.~~116. "Wetlands" means ~~those~~ areas that are inundated or saturated by surface water or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

§ 107. Requirement to Connect to a Public Sewer

Every sewer system shall be connected to a public sewer except when a public sewer is not available or practical for use, in which case an on-site wastewater treatment system may be considered.

§ 108. Siting Requirements~~; Responsible Agency~~

A. Before a person may enter into a financial commitment for or initiate construction of a new wastewater treatment system, or undertake a substantial modification to an existing wastewater treatment system, s/he shall notify the Director, comply with these regulations, and to the extent practicable avoid locating ~~part or all of~~ the new or modified system at a site that is:

1. Subject to a significant risk from earthquakes, floods, fires, or other disasters ~~which~~that could cause a breakdown of the ~~domestic~~ wastewater ~~disposal~~treatment system or any portion thereof; or

2. Within the hundred-year floodplain.

§ 109. Prohibited Discharges

A. No surface runoff shall be discharged through a storm drain or similar mechanism into any portion of a wastewater treatment system. Non-domestic wastes such as chemicals or paints and other substances, including household hazardous wastes, that are detrimental to the proper functioning of a wastewater treatment system, shall not be disposed of therein.

B. Effluent from any on-site wastewater system shall not be discharged to surface waters or upon the surface of the ground. Sewage shall not be discharged into any abandoned or unused well, or into any crevice, sinkhole, or similar opening, either natural or artificial.

~~A. Permits to construct and/or operate a domestic wastewater treatment system may be obtained from the Domestic Wastewater Program of the NNEPA Surface and Ground Water Protection Department.~~

~~§ 108~~**§ 110. Compliance with Other Laws**

When a wastewater treatment system is found by the Director to create or contribute to a public health hazard or nuisance, to violate any provision of the NNCWA or SDWA, these regulations, or other applicable law, or to deviate significantly from a construction and operation permit approved by the Director, the Director may order the owner or operator to take the action necessary to correct or eliminate the hazardous condition or to otherwise bring the wastewater treatment system into compliance. Orders issued by the Director will be in accordance with Uniform Rules §§ 301-304 and Section 115 of these regulations. The necessary action may include physical upgrades to meet the Minimum Design Requirements of Part V of these regulations, as provided in Section 502(A) of these regulations.

§ 111. Closure of Wastewater Treatment System

A. After closing an on-site wastewater treatment system, the owner must provide written notification to the Director within thirty (30) days of closure, pursuant to Section 302(Q) of these regulations.

B. Prior to conducting any field work to close a wastewater treatment facility, a closure plan must be submitted to the Director, and his or her approval obtained. Closure of a wastewater lagoon system must meet the requirements of Section 507(K) of these regulations.

§ 112. Variances and Exemptions

(Reserved.)

§ ~~109~~113. Confidentiality of Business Information

A. Any records, reports or other information obtained under these regulations shall be available to the public, except that upon a showing satisfactory to the Director by any person that records, reports or other information or any particular part thereof (other than reporting data) to which the Director has access under these regulations would, if made public, divulge methods or processes entitled to protection as trade secrets of such person, the Director shall consider such record, report or other information or portion thereof confidential, except that such material may be disclosed to other officers, employees or authorized representatives of the Navajo Nation concerned with carrying out these regulations or when relevant to any proceeding under these regulations. The Director shall deny claims of confidentiality for any permit or licensee name and address; permit or licensee applications; permits or licenses; and reporting data.

B. An applicant, permittee or licensee who submits material to the Director under a claim of confidentiality:

1. may submit the material claimed to be confidential separately from the remainder of the submittal;

2. shall precisely identify the material for which the confidentiality claim is asserted; and

3. shall provide sufficient supporting information to allow evaluation of that claim.

C. All confidentiality claims made regarding material submitted to the Director under these regulations shall be evaluated pursuant to Subsection (B) of this section. Information that is reporting data, a standard or limitation, or is collected under these regulations is not eligible for confidential treatment.

D. All materials submitted to the Director under these regulations, except to the extent determined confidential

pursuant to this section, and all wastewater treatment system permits and septage hauler and transportation licenses are public records and not entitled to protection under the Navajo Privacy Act, 2 N.N.C. §§ 81-91.

~~(Reserved.)~~

~~§ 110~~§ 114. Enforcement; Administrative Procedures

When the Director has reason to believe that a violation of any of these regulations has occurred, the Director may enforce these regulations pursuant to the Navajo Nation Clean Water Act, 4 N.N.C. § 1382, the Navajo Nation Safe Drinking Water Act, 22 N.N.C. § 2582, and Subpart 3 of the Navajo Nation Uniform Regulations, as the case may be. For violations that are of a continuing nature, each and every day that the violation exists shall constitute a separate and distinct violation.

§ 115. Issuance of Permits

The Director shall issue permits pursuant to Subpart 2 of the Uniform Rules.

§ 116. Grounds for Revocation, Modification, or Suspension of Permits, Certifications, and Licenses

A. Grounds for revocation, modification or suspension

1. Any permit, certification, or license issued under these regulations may be revoked, modified, or suspended in whole or in part during its term for cause, upon the Director's initiative or upon request of the permittee, certified individual, or licensee or any interested person. Cause includes but is not limited to the following reasons:

   a. violation of any condition of the permit, certification, or license;

   b. obtaining a permit, certification or license by misrepresentation or failure to disclose fully all relevant facts; or

   c. change in condition that requires either a temporary or permanent reduction or elimination of the permitted discharge, disposal operation, or action authorized, where "condition" does not include statutory or regulatory standards enacted or adopted during the permit or license term.

2. Modification, revocation, or suspension of a permit, certification or license shall be made in accordance with Section 204 of the Uniform Rules. Any such modification, revocation, or suspension shall be effective thirty (30) calendar days after issuance of the initial decision, unless a later date is specified. If the holder or any interested person requests a hearing before the Director, the order of modification, revocation or suspension shall be effective thirty (30) calendar days after the final determination by the Director.

B. Notice and hearing

1. If the Director recommends denial of an application for a permit, certification, or license, or revokes, suspends, or modifies a permit, certification or license, he or she shall give written notice of his or her action to the applicant or permit, certification or license holder, and to any interested person who has requested to be notified.

2. The applicant, the holder of the permit, certification or license, or any interested person may request, in writing, a hearing before the Director after issuance of the initial decision. Such hearing shall be held within thirty (30) calendar days after receipt of the written request, or as soon thereafter as reasonably practical. The Director may affirm, modify or reverse his or her initial decision based upon the evidence presented.

C. Conflict of Interest

1. The Director, or his or her delegate, shall not participate in an action on a permit, certification or license which involves himself or herself, any discharger, industrial user or wastewater treatment system with which he or she is connected as a director, officer or employee, or in which he or she has a direct personal financial interest. Direct financial interest is defined as receiving, or having received during the previous two years, a significant portion of income directly or indirectly from applicants for or holders of permits, certifications, or licenses.

2. To the extent not prohibited by Subsection (1) of this section, the Director, or his or her delegate, shall not participate in any proceeding as a consultant or in any other capacity on behalf of any discharger, industrial user or wastewater treatment system, except to the extent otherwise allowed under Navajo Nation law. In no case shall the Director, or his or her delegate, participate in any proceeding as a consultant or in any other capacity on behalf of any discharger, industrial user or wastewater treatment system that was instituted or ongoing during the Director's or delegate's tenure.

§ 117. Judicial Enforcement and Venue

~~Enforcement~~Violations of these regulations ~~shall~~may be ~~governed by the provisions of Subchapter 9 of~~subject to judicial enforcement pursuant to the NNCWA~~.~~ and NNSDWA. Issuance of a Construction Permit ~~procedures, hearings, administrative orders, and other administrative procedures shall be governed by the Uniform Rules.~~

~~§ 111. Judicial Review~~

A. ~~Issuance of a construction permit pursuant to Section 201 and an operating permit~~ pursuant to Part II of these regulations, an Operating Permit pursuant to Part III of these regulations, an Operator Certification pursuant to Section ~~301 are~~ VI of these regulations, a Septage Removal and Hauling License pursuant to Part VII of these regulations, and a Reclaimed Water permit pursuant to Part IX of these regulations is a final agency ~~actions~~action for purposes of the NNCWA, 4 N.N.C. § 1392 ~~(NNCWA § 1002)~~, the NNSDWA, 22 N.N.C. § 2586, and §§ 212(b) and 214 of the Uniform Rules.

B. ~~§ 112~~Any lawsuits related to permits, certifications, or licenses issued under these regulations, conduct authorized under these regulations, or violations of any permit, certification, or license must be brought, if at all, in the Navajo Nation courts, as provided in the NNCWA, 4 N.N.C. § 1392, and the NNSDWA, 22 N.N.C. § 2583.

§ 118. Severability

If any provision of these regulations or the application thereof to any person or circumstance is held invalid, the remainder of these regulations, and the application of such provision to other persons or circumstances~~,~~ shall remain unaffected, and to this end the provisions of these regulations are declared to be severable.

§ ~~113~~119. No Waiver of Sovereign Immunity

These regulations shall not constitute a waiver of sovereign immunity. NNEPA assumes no liability for ~~domestic~~ wastewater ~~disposal~~treatment system malfunction or underperformance. NNEPA only prescribes minimum design requirements, which shall not diminish the duty of owners and operators to comply with applicable statutes, regulations and industry standards, and to provide adequate system design, construction, operation, maintenance, and performance.

PART II CONSTRUCTION PERMIT PROVISIONS

§ 201. Applicability

This Part II applies to all new wastewater treatment systems, including systems that generate or blend reclaimed water, and all substantial modifications to existing wastewater treatment systems, other than small capacity on-site wastewater treatment systems or modifications thereto.

§ 202~~General~~. Requirements to Apply for and Obtain a Construction Permit

Prior to the construction or installation of a new wastewater treatment system, or a substantial modification to an existing wastewater treatment system, an application for a construction permit shall be made to, and a construction permit obtained from, the Director. Any physical site expansion, addition of a septage receiving station, or substantial change to an existing wastewater treatment system to allow the system to receive, store, or treat septage or to generate or blend reclaimed water is a substantial modification requiring a construction permit. The Director ~~shall~~will review the application, taking into consideration the Minimum Design Requirements of Part ~~IV~~V of these regulations, and issue a permit according to the procedures outlined in Subpart 2 of the Uniform Rules. Failure to obtain a construction permit is a violation of ~~the NNCWA~~these regulations and is subject to an enforcement action by the Director pursuant to ~~Subchapter 9 of~~ the NNCWA, NNSDWA, and ~~Subpart 3 of the Uniform Rules~~Sections 114 and 117 of these regulations.

~~A. Every sewer system shall be connected to a public sewer except when such sewer is not available or practical for use, in which case an on-site wastewater treatment system may be considered.~~

~~No surface runoff shall be discharged into any portion of a wastewater treatment system. Non-domestic wastes such as chemicals or paints and other substances, including household hazardous wastes, that are detrimental to the proper functioning of a wastewater treatment system, shall not be disposed of therein.~~

~~B.~~A. ~~Effluent from any on-site wastewater system shall not be discharged to surface waters or upon the surface of the ground. Sewage shall not be discharged into any abandoned or unused well, or into any crevice, sinkhole, or similar opening, either natural or artificial.~~

~~B. When a wastewater treatment system is found by the Director to create or contribute to a public health hazard, to violate any provision of the NNCWA, or to deviate significantly from the construction plans or construction and material specifications approved by the Director, the Director may order the owner or operator to take the action necessary to correct or eliminate the hazardous condition or to otherwise bring the wastewater treatment system into compliance with the NNCWA and these regulations. The necessary action may include physical upgrades to meet the Minimum Design Requirements of Part IV of these regulations, as provided in Section 401(A).~~

~~C. Upon closing an on-site wastewater treatment system, the owner must provide written notification to the Director within thirty (30) days of closure, per Section 407(G). When a wastewater treatment facility is closed, a closure plan must be submitted to the Director, and his or her approval obtained, before any work begins in the field. Closure of a wastewater lagoon system must meet the requirements of Section 406(K).~~

§ 203

~~§ 202~~. Construction Permit Requirements

A. An application for a construction permit ~~for a proposed wastewater treatment system or proposed substantial modification to a wastewater treatment system~~ shall include, but is not limited to, the materials listed immediately below. Documents prepared with the aid of a computer shall be submitted in both printed form and electronic form such as portable document format (PDF) or other format acceptable to the Director. Any application not containing the requisite materials will be rejected. The requisite materials are:

1. an application form, to be obtained from the Director and completed;

2. the appropriate fee~~, as determined by the Director, and submitted by a certified check, a cashier's check, or money order; ~~;

3. two (2) sets of construction plans, ~~as required~~ in accordance with Section ~~204~~206 of these regulations;

4. two (2) sets of material and construction specifications, as required in Section ~~205~~207;

5. two (2) copies of engineering reports, as required in Section ~~206~~208;

6. a copy of any recordation of a right-of-way or easement;

7. a copy of the operation and maintenance manual, as required in Section 303(A); ~~and~~

8. a copy of information required by the Director to verify the applicant's financial capacity to construct, install, and operate the system, including at minimum a copy of information showing the applicant meets the financial assurance requirements of Subsection (G) of this section; and

~~8.~~9. a copy of any operation and maintenance agreement between the applicant and the customer for an on-site wastewater treatment system~~,~~ if the ownership and maintenance responsibility for the system will be transferred to the customer after construction.

B. All construction permit holders must secure financial assurance in the form of a surety bond and general liability. The surety bond must be issued by a surety company that is among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of Treasury. A construction permit will not be issued absent a surety bond and general liability insurance meeting the requirements of this section.

~~B.~~C. The Director ~~shall~~will review the application package for the adequacy of the proposed design and construction of the system and ~~shall~~will, if necessary, mandate such changes as the Director determines, in his or her discretion, are ~~required by~~necessary to satisfy the requirements in these regulations. When the Director is satisfied that the plans and specifications are adequate for the conditions under which the proposed wastewater treatment system is to be installed and operated, a construction permit ~~shall~~will be

issued to the owner. Construction shall not commence until the construction permit is issued by the Director.

D. The permittee and its agents and employees shall consent to the jurisdiction of the Navajo Nation and shall agree to abide by all laws of the Navajo Nation. Each application and each permit that is issued shall contain the following statement to which the permittee must agree and subscribe for the application to be complete and the permit to be valid:

"I consent to the jurisdiction of the Navajo Nation with respect to all activities conducted pursuant to this permit and the Navajo Nation Domestic Wastewater Regulations. This consent shall be effective when a permit is issued and may not be withdrawn. This consent shall extend to and be binding upon all employees and agents, including contractors and subcontractors of permittee whose activities fall within the scope of the issued permit."

E. Permittees shall include the statement in Subsection (D) of this section as a term and condition of any contract or other agreement it executes for services to be performed or goods to be provided within the Navajo Nation in connection with the permit, and each party to any such contract or other agreement must agree and subscribe to said statement, substituting the name of the party for "permittee" as appropriate.

~~C.~~F. Any deviation from the plans and specifications approved by the Director that could change the hydraulic conditions and operation of the wastewater treatment system must be approved by the Director prior to making such deviation in the field. Noncompliance with this or other requirement in Part II of these regulations is grounds for permit revocation pursuant to Section 116 of these regulations and Section 204 of the Uniform Rules ~~§ 204~~.

~~D.~~G. Before a construction permit may be issued for a new wastewater treatment system, the applicant shall demonstrate to the satisfaction of the Director that it has the financial, managerial and technical capacity to comply with ~~the NNCWA~~these and all other applicable ~~NNEPA~~laws and regulations. Moreover, the applicant must have an agreement in place with the customer for maintenance of ~~an~~a large capacity on-site wastewater treatment system, per an approved operation and maintenance manual, if the ownership and maintenance responsibility of the large capacity on-site wastewater treatment system will be transferred to the customer following construction.

~~E.~~H. If the wastewater treatment system discharges into ~~the waters~~Waters of the Navajo Nation, including by discharging through groundwater into Waters of the Navajo Nation in a manner that is the functional equivalent of a direct discharge, a NNPDES permit (or a federal NPDES permit if the NNPDES permit program has not yet been developed) must be obtained~~.~~ before a construction permit may be issued. If ~~it~~the discharge involves land application, a No Discharge permit must be obtained before a construction permit may be issued. ~~If a~~A NNPDES (or NPDES) permit also must be obtained if the wastewater treatment system involves septage transport. If the wastewater treatment system utilizes septic system wells to inject waste or effluent from multiple dwellings, or from nonresidential septic tanks that serve 20 or more people, into groundwater, it must meet the ~~requirements~~criteria and standards for ~~the use and disposal of sewage sludge developed~~Class V wells pursuant to ~~Subchapter 4 of the NNCWA~~40 C.F.R. Part 146 and ~~any~~the Navajo Nation UIC regulations ~~promulgated thereunder~~.

~~F.~~I. A construction permit shall be valid for three (3) years from the date of issuance, unless an extension is obtained through permit modification pursuant to Section 204 of the Uniform Rules ~~§ 204~~.

~~G.~~J. An application for an extension of time to complete construction must be submitted at least thirty (30) days prior to expiration of the construction permit. The responsible engineer must apply for the permit extension.

If a permit extension is not obtained from the Director within thirty (30) days after the date of submittal of the application for the extension, all construction must terminate at the end of the permit term until further notice from the Director.

§ ~~203.~~ 204. Construction Permits for Septage-Receiving Facilities~~Exemptions from the Requirement to Obtain a Construction Permit~~

An application for a construction permit to construct or install a new wastewater treatment system that will receive, store, or treat domestic septage or any modification to an existing wastewater treatment system made to allow the system to receive, store, or treat septage must include the following information, in addition to the application requirements in Section 203 of these regulations:

1. authorization from the landowner and septage-receiving facility owner, if they are different entities from the applicant, agreeing to allow the applicant to treat septage at the facility and, if applicable, store septage at the site; and
2. a description of the land use of all parcels of land that abut the parcel of land upon which the proposed facility or facility expansion is to be located.

§ 205. Exemptions from the Requirement to Obtain a Construction Permit

A construction permit shall not be required for the following activities:

1. ~~1.~~ Installation of a service connection, if:
   a. ~~a.~~the connection is dedicated ~~for~~to a single customer;
   b. ~~b.~~ the customer consists of a single-family dwelling or a single building, which may contain multiple-family dwellings, but is not a shopping mall or a multiple-building complex; and,
   c. ~~c.~~the sewer line serving the customer does not pass by a potential customer located between the connection and the customer to be served.
2. ~~2.~~ Operation and maintenance activities, including but not limited to:
   a. ~~a.~~repair of a sewer line leak;
   b. ~~b.~~ replacement of existing deteriorated pipeline with new pipeline of the same size;
   c. ~~c.~~ routine cleaning and maintenance of a sewer system; and
   d. ~~d.~~ replacement of equipment with equipment of the same type, size, and rated capacity.

§ ~~204~~206. Construction Plans

A professional engineer licensed in Arizona, New Mexico, or Utah~~,~~ and qualified in civil engineering design and construction~~,~~ shall prepare construction plans as described below. Illegible, mutilated, or poorly prepared plans are not acceptable and will not be reviewed. Documents prepared with the aid of a computer shall be submitted in both printed form and electronic form, such as portable document format (PDF) or other format acceptable to the Director. All construction plans shall comply with the following minimum requirements~~ set forth in subsections (A) (D) of this section.~~:

A. Quality: Construction drawings and maps shall be made from actual field or photogrammetric surveys and shall be drawn on sheets no larger than thirty (30) inches by forty-two (42) inches. The scale(s) used on the drawings may vary according to the space available to show clearly all the necessary data, but shall be such that the drawings are legible when photocopied onto sheets measuring eleven (11) inches by seventeen (17) inches. The plan sheets shall be numbered sequentially with the first sheet being sheet number one and the last sheet number equal to the total number of sheets. Each sheet shall have the responsible engineer's seal and signature. ~~The cardinal direction of north~~Site drawings and maps shall ~~be shown where appropriate.~~show, if applicable:

1. the cardinal direction of north;

2. the boundaries of the total parcel of land on which the proposed system is to be located;

3. direction and percent slope of each test pit or boring, if applicable;

4. Waters of the Navajo Nation;

5. drainage depressions;

6. roads;

7. fences and gates; and

8. a buffer area map showing natural and man-made features within a three hundred (300) foot radius from the boundary of the facility, including:

   a. critical or essential habitat of a threatened or endangered species;

   b. surface waters;

   c. roads;

   d. buildings and other man-made structures;

   e. public and private wells; and

   f. other information requested by the Director.

B. Title Sheet: The first sheet of a set of construction plans is the title sheet. The title sheet shall contain the following information, as appropriate:

1. name of the project;

2. name of the operating utility or the owner, and complete contact information;

3. a vicinity map of sufficient size and scale to locate the project within its immediate area;

4. a summary of the scope of the project;

5. the name of the responsible engineer, and complete contact information; and

6. the signed certification of the responsible engineer that the plans were prepared by him or her, or under his or her direct supervision.

C. Site Topography: A detailed topographical map of the project site shall be provided, showing the arrangement of the present or planned wastewater treatment system and both the original and final grades for the site, with a contour interval not greater than two (2) feet. Elevations shall be based on North American Vertical Datum 1988 or a more recent adjustment. For wastewater treatment facilities that would include septage storage, the map shall include the delineated boundaries for any proposed septage storage area.

D. Design Details: Detailed information for the various construction features of the wastewater treatment system shall be provided, including a plan view, elevations, cross-sections, and profiles. The construction plans shall include the following items as appropriate:

1. plans and profiles for all sewer lines, manholes, force mains, and lift stations in a horizontal scale of not more than one hundred (100) feet to the inch and a vertical scale of not more than ten (10) feet to the inch, with both scales clearly indicated;

2. plans and cross-sections showing construction details and elevations of key components of the wastewater collection and conveyance system;

3. elevation drawings of structures showing the hundred-year flood plain or the highest flood elevation if the hundred-year flood plain has not been defined;

4. location and dimensions of the various components of the wastewater treatment system, including setback distances;

5. location of soil exploration pit(s), boreholes, and percolation test holes;

6. location of building sewer and water service lines;

7. location and size of existing sewer mains;

8. location of streams, ditches, watercourses, ponds, subsurface drains, etc. in the vicinity of the wastewater treatment system; and

9. location of ~~easement~~easements and/or ~~right~~rights-of-way and identification of any physical or political boundaries within the area to be served.

~~For an~~E. Large capacity on-site wastewater treatment systems. For a large capacity on-site wastewater treatment system, the construction plans shall include the following additional information, as appropriate:

1. lot size and dimensions;

2. location and dimensions of driveways, roadways, parking, and other paved areas;

3. type of dwelling, number of bedrooms, and estimated number of occupants;

4. location, dimensions, and capacities of the essential components of the system;

5. location, type, and depth of all existing and proposed nonpublic water supply sources within two hundred (200) feet of the proposed on-site wastewater treatment system, and of all existing or proposed public water supply sources within one thousand (1000) feet of the proposed system; and

6. distance to the nearest public sewer, the size of that sewer, and whether it is accessible by gravity.

F. Absorption systems. For an absorption system, the construction plans shall include the following additional information, as appropriate:

1. plans and cross-sections showing the details and elevations of key components of the absorption system;

2. details of the distribution pipe, including its size, length, slope, spacing, and constituent material;

3. details of drop boxes or distribution boxes;

4. type and dimensions (including thickness) of filter materials, and their arrangements;

5. type and dimensions (including thickness) of the barrier separating the filter material from the backfill; and

6. location and dimensions of the replacement area.

§ ~~205~~**207. Construction and Material Specifications**

A. ~~A.~~ Specifications shall be prepared for each proposed wastewater treatment system or proposed substantial modification to an existing system~~, which in~~ that supplement the construction drawings by describing the anticipated methods of construction and the materials to be used~~ will supplement the construction drawings.~~ . Specifications must be clear and concise and include a detailed description of the methods of construction, quality and sizing of materials, and unit quantities, along with a detailed description of testing methods and quality control, construction supervision, and inspection procedures. A professional engineer licensed in Arizona, New Mexico, or Utah~~,~~ and qualified in civil engineering shall prepare the specifications, as described below.

1. The title page of the specifications shall show the name of the project, the ~~Navajo Nation~~ Chapter and the county in which the project is located, and the responsible engineer's seal and signature.

2. Construction specifications shall include, but are not limited to, the following information:

a. a detailed plan for maintaining the normal operations of any existing facilities during

construction, with minimal interruption of service;

b. laying methods and conditions, including depth of cover, type of bedding, reaction blocking for sewer mains, and structural considerations and construction details for manholes;

c. pressure and leakage test procedures for new sewer mains, including the applicant's proposed method of determining maximum allowable leakage;

d. construction methods and procedures for specific treatment units, such as septic tanks, drain fields, and wastewater lagoons; and

e. construction methods and procedures for chemical feeding, pump, flow measurement and other devices, if applicable.

3. Material specifications shall include, but are not limited to, the following information:

a. material specifications for all wastewater treatment equipment;

b. schedule and class of sewer main and all appurtenances, including approval status by testing and certification organizations;

c. make, model, horsepower, and performance curve of all pumping equipment;

d. liner material for lined wastewater lagoons;

e. material specifications for septic tank, appurtenances, and absorption system materials; and

f. chemicals to be used for wastewater treatment together with usage information.

B. If a wastewater treatment system or professional engineering firm utilizes a set of standard construction and/or material specifications, such specifications may be submitted to the Director for approval. Following this approval, no construction or material specifications will be required for any future construction permit application for the same wastewater treatment system or for applications submitted by the same professional engineering firm, provided no changes are made to the standard specifications. If there are any additions, deletions, or revisions to the approved standard specifications for a particular application, the responsible engineer shall submit an addendum with the construction permit application covering only the changes, but if the changes are made to the standard specifications themselves, a complete revised copy of the standard specifications must be submitted for the Director's review and approval. Any responsible engineer who is using a set of standard construction and/or material specifications must place his or her seal and signature on the cover page ~~for~~of these specifications, pursuant to ~~subsection~~Subsection (A)(1) of this section.

§ ~~206~~208. Engineering Report

A. An engineering report containing all the information required ~~evaluating~~to evaluate the safety and performance of the proposed design and construction of a new wastewater treatment system or substantial modification to an existing system shall be submitted with each application. It shall carry the seal and signature of a professional engineer licensed in Arizona, New Mexico, or Utah and qualified in civil engineering design and construction. The engineering report shall have a title sheet comparable to that of the construction plans and construction and material specifications outlined in Sections ~~204~~206(B) and

~~205~~207(A)(1~~).~~) of these regulations. The report shall include, but is not limited to, the following information which, when necessary to avoid duplication, may be provided by reference to documents already being submitted with the application, pursuant to Sections ~~202, 204~~203, 206, and ~~205:~~ 207 of these regulations:

1. General Information:

    a. name of the project owner and/or the utility responsible for the operation and maintenance of the wastewater treatment system, and complete contact information;

    b. name of the responsible professional engineer, and complete contact information;

    c. description of the project area and its surroundings (for example, location, terrain, zoning and current use, future development potential); and

    d. approval of proposed land use and development by the appropriate authority having jurisdiction, if required.

2. General Design Data:

    a. description of the project;

    b. number and type(s) of existing and proposed service connections;

    c. details (estimated and justified as necessary) of average daily and peak flows;

    d. physical, chemical, and biological characteristics of the wastewater;

    e. assumptions underlying design parameters and analyses, and their justification;

    f. detailed hydraulic analyses and the sizing of sewer pipes and appurtenances;

    g. minimum and maximum flow velocities; and

    h. pump design details.

3. Information Specific to Septic Tanks and Absorption Systems:

    a. ~~a.~~ septic tank capacity, material, dimensions, and other features, and the name and address of the manufacturer if the tank is to be commercially manufactured;

    b. ~~b.~~ design details of service connections, sewage pumps (if any), and discharge lines, including schedule, grade, type, pipe slope, and discharge capacity;

    c. ~~c.~~ soil condition from soil exploration pits and boreholes, including soil logs prepared in accordance with the U.S. Department of Agriculture soil classification system;

    d. ~~d.~~ present and highest anticipated groundwater table;

    e. ~~e.~~ flooding potential for the area in which ~~an~~a large capacity on-site wastewater treatment

system is located;

f. ~~f.~~ results of percolation tests, estimation of soil absorption rate, and calculation of absorption area; and

g. ~~g.~~ design details of the absorption system.

4. Information Specific to Wastewater Lagoon Systems:

a. results of geotechnical investigations, including but not limited to borehole logs, soil classification, groundwater level, permeability, percolation tests, compaction tests, and strength parameters;

b. estimated soil absorption rate, seepage rate, and evaporation rate, and the proposed size and arrangement of the wastewater lagoons, with explanation;

c. design of hydraulic and organic loading, and the operation and maintenance procedures to be followed when loading;

d. anticipated treatment efficiency, effect of effluent seepage into groundwater, and the physical, chemical and biological characteristics of that effluent;

e. embankment or dike design.

f. ~~f.~~ freeboard to be provided, with justification; and

g. ~~g.~~ liner properties and design details.

5. ~~5.~~ Information Specific to Wastewater Treatment Facilities:

a. projected maximum volume of wastewater to be treated and, for existing facilities, present operating capacity;

b. year when plant is expected to operate at its maximum capacity;

c. ~~e.~~ land available for the future expansion of the facility;

d. ~~d.~~ proposed or present treatment scheme shown in block diagram;

e. ~~e.~~ proposed or present design criteria (retention times, velocities, discharge rate, etc.);

f. ~~f.~~ for septage-receiving facilities:

i. soil type and depth;

ii. area drainage;

iii. volume of septage to be treated daily, monthly, and annually;

iv. volume of wastewater to be treated daily, monthly, and annually;

v. area for discharging septage into the facility;

vi. system for containing spill from vehicles discharging septage to the facility;

vii. mechanism for containing any facility overflows;

viii. access controls;

ix. system for screening septage, if applicable;

x. alkaline stabilization system, if applicable; and

xi. other information requested by the Director;

~~f.~~g. quality of treated wastewater discharge;

~~g.~~h. ~~g.~~ for substantial modifications to an existing treatment facility, a detailed description of the effect of the proposed modification, including retention times and velocities; ~~and~~

~~h.~~
i. erosion and sediment control plan; and

~~h.~~j. detailed description of any pilot testing to be performed.

§ ~~207~~209. Notification of Commencement of Construction~~, and~~; Inspections

The Director shall be notified at least seven (7) days before the beginning of construction on the site in order to timely schedule an inspection ~~or inspections.~~ . The Director may inspect a construction site at any time to evaluate compliance with the approved construction plans and construction and material specifications, pursuant to the NNCWA, 4 N.N.C. § 1381 ~~(NNCWA § 901(b)),~~ and shall be given access to the site for that purpose.

§ ~~208~~210. Approval of Construction

A. New wastewater treatment systems and substantial modifications to existing wastewater treatment systems shall not be placed into operation until the Director issues written approval of construction.

B. Upon completion of the permitted construction, the responsible engineer shall make arrangements with the Director for a final inspection. Prior to this inspection, the responsible engineer shall submit to the Director a letter certifying that the construction is complete in accordance with the approved plans and specifications. The letter must specifically identify the project by permit number. The following information, where applicable, shall be submitted as part of the responsible engineer's letter of certification:

1. as-built construction drawings;

2. results of lamp tests, pressure/leakage tests, and air tests conducted on sewer lines, manholes, lift stations, and septic tanks, and the results of pressure/leakage tests conducted on force mains;

3. results of field compaction tests conducted on earthwork;

4. results of liner tests;

5. a letter of acceptance from the relevant entity to be responsible for the operation and maintenance of the wastewater treatment facility; and

6. any information specified on the construction permit, or other pertinent information for the project.

C. If the project was not completed in accordance with the approved plans and specifications, the responsible engineer shall so state in the certification letter, shall describe any deviations from the project as permitted, and shall provide an explanation for all such deviations.

D. Issuance of a written approval of construction shall not be subject to separate permit issuance procedures under these regulations or Subpart 2 of the Uniform Rules unless the Director finds in his or her sole discretion that a deviation from the project as permitted is significant enough to warrant public notice and comment.

E. Failure to obtain written approval of construction from the Director prior to placing into operation any new wastewater treatment system or a substantial modification to a wastewater treatment system is a violation of these regulations and is subject to an enforcement action by the Director pursuant to ~~Subchapter 9 of~~ the NNCWA, NNSDWA, and ~~Subpart 3 of the Uniform Rules.~~ Sections 114 and 117 of these regulations. A public water system may not serve a customer or customers of the new or substantially modified wastewater treatment system until the Director has issued his or her written approval of construction.

PART III OPERATING PERMIT PROVISIONS

§ 301. Applicability

This Part III applies to all new wastewater treatment systems, including systems that generate or blend reclaimed water, and all substantial modifications to existing wastewater treatment systems, other than small capacity on-site wastewater treatment systems or modifications thereto.

§ 302. General Requirements

A. ~~A.~~ Any new or substantially modified wastewater treatment system, other than small capacity on-site wastewater treatment systems, shall not be placed into operation until the Director issues an operating permit, which permit shall not be issued until written approval of construction has been secured by the permittee~~.~~ pursuant to Section 210 of these regulations. A public water system may not serve the customer ~~or customers~~(s) of any new or substantially modified wastewater treatment system until the Director has issued an operating permit for the system.

B. Any existing wastewater treatment system, other than small capacity on-site wastewater treatment systems, shall apply for an operating permit from the Director within six (6) months of the effective date of these regulations. If an existing system has submitted a timely and complete application for an operating permit but the Director has not taken final action on the application, operation of the system without an operating permit shall not be considered a violation of these regulations. The , as long as the system may beis operated consistent with the information provided in the operating permit application. Existing systems shall not operate, however:

1. in violation of any provision of the NNCWA or implementing regulations; or

2. in such a manner as to contribute to or constitute a public health hazard.

In addition, no substantial modification to an existing system may be constructed or operated without the required permits, as provided in Section 201202 of these regulations and subsectionSubsection (A) of this section.

C. Application for an operating permit isshall be made by filing the appropriate application form, together with the appropriate fee in the form of a certified or cashier's check or money order, with the Domestic Wastewater Program of the NNEPA Surface and Ground Water Protection Department. . The application form and fee schedule may be obtained from the Domestic Wastewater Program. Applications for operating permits must include the following:

1. a completed application form, together with the appropriate fee;

2. a business plan for the system, if available or as required under subsection (HSubsection (N) of this section;

2.3. a statement as to whether and how many certified operators will be atrunning the system, and their grade levels;

3.4. an operation and maintenance manual for the system (for existing systems that do not have such manuals, a manual shall be developed and submitted within the time specified in the operating permit); and

5. a copy of information showing the applicant meets the financial assurance requirements of Subsection (D) of this section;

6. any information required by the Director to verify the applicant's technical ability to operate the facility; and

4.7. a certification by the owner or operator that the system will be operated in compliance with all applicable requirements.

D. All operating permit holders must secure general liability insurance in an amount determined to be sufficient by the Director. In addition, the operating permit holder must provide a surety bond or other reasonable guaranty that it will continue to maintain and operate the system for a period of at least five years. The surety bond or guaranty shall be in an amount sufficient to ensure the full and faithful performance by the owners or operators of the system, and their successors and assigns, with regard to their obligation to

properly maintain and operate the system in accordance with all requirements of law and according to the conditions set by the Department in the permit. The surety bond must be issued by a surety company that is among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of Treasury. An operating permit will not be issued absent financial assurance meeting the requirements of this subsection.

~~D.~~E. Operating permits ~~shall~~will be issued pursuant to Subpart 2 of the Uniform Rules, and shall be good for three (3) years from the date of issuance. Public comment on a proposed operating permit shall be limited to addressing the operating requirements in the permit and shall not address whether the system should be allowed to operate at all; that issue may be addressed only when the construction permit is proposed, for new systems or substantial modifications to existing systems. An application for renewal of an operating permit must be submitted to the Domestic Wastewater Program at least thirty (30) days before expiration of the permit, together with the appropriate fee ~~in the form of a certified or cashier's check or money order, with the Domestic Wastewater Program.~~ . If a wastewater treatment system has submitted a timely and complete renewal application under these regulations, but the Director has not taken final action on it, the current operating permit shall remain in effect until the Director makes a final determination on the renewal application ~~has been finally determined by the Director~~.

F. The permittee, its agents, and employees, shall consent to the jurisdiction of the Navajo Nation and shall agree to abide by all laws of the Navajo Nation. Each application and each permit that is issued shall contain the following statement to which the permittee must agree and subscribe for the application to be complete and the license to be valid:

"I consent to the jurisdiction of the Navajo Nation with respect to all activities conducted pursuant to this permit and the Navajo Nation Domestic Wastewater Regulations. This consent shall be effective when a permit is issued and may not be withdrawn. This consent shall extend to and be binding upon all employees and agents, including contractors and subcontractors of permittee whose activities fall within the scope of the issued permit."

G. Permittee shall include the statement in Subsection (F) of this section as a term and condition of any contract or other agreement it executes for services to be performed or goods to be provided within the Navajo Nation in connection with the permit, and each party to any such contract or other agreement must agree and subscribe to said statement, substituting the name of the party for "permittee" as appropriate.

H. Septage-receiving facilities shall obtain an operating permit from the Director before receiving septage and must comply with the operating, record-keeping and reporting requirements in accordance with Section 303 and 306 of these regulations. Wastewater treatment facilities that have an existing operating permit as of the effective date of these regulations and are already accepting domestic septage must submit an operating permit modification request within ninety (90) days of the effective date of these regulations in accordance with Section 303 of these regulations.

I. The Director will establish guidance on best management practices for receiving, storing, and treatment of septage at a septage-receiving facility, which shall include but is not limited to criteria for determining:

1. the amount and rate of domestic septage to be accepted based on overall facility capacity;

2. whether unused facility capacity is available to treat septage loadings;

3. sensitivity of the treatment facility process to daily fluctuations in loadings brought on by the

addition of septage;

4. slug septage loadings of B.O.D., ammonia, nitrogen, or phosphorus which may cause process upset, odor nuisance, aeration tank/aerated digester foaming, or pass through to effluent;

5. the best point within the treatment process to introduce septage loadings;

6. when it may be necessary to introduce septage during off-peak loading periods; and

7. how the volume and concentration of bacterial growth inhibitors in domestic septage from portable toilets and holding tanks may impact the treatment process.

~~E.~~J. The Director may specify conditions of operation based on minimum design requirements, as specifically provided in Part ~~IV of these regulations~~V of these regulations. For septage-receiving facilities, the Director may also specify operating conditions based on site conditions, equipment used to unload, store, and treat septage, and facility capacity.

K. ~~F.~~ The Director may specify additional requirements if necessary for the proper operation of an existing or proposed wastewater treatment system, or for the public safety, health and general welfare, not already included in these regulations.

~~F.~~L. The Director may revoke an operating permit, pursuant to Section 116 of these regulations and Section 204 of the Uniform Rules ~~§ 204~~, for any ~~domestic~~ wastewater treatment system that is unable to demonstrate its continuing ability to remain in compliance with these regulations.

~~G.~~M. ~~G.~~ The Director may modify an operating permit at any time, pursuant to Section 204 of the Uniform Rules ~~§ 204~~, to reflect any approved or permitted modifications to the system or to modify a compliance schedule. The permittee also may request modification of an operating permit, at any time, with adequate justification. The permittee shall submit the request to the Director, together with a detailed justification for the modification(s) requested. Permit modifications will be issued by the Director on a case-by-case basis~~, pursuant to Uniform Rules § 204.~~ .

~~H.~~N. ~~H.~~ Operating permits are non-transferable, except with the Director's prior approval. The permittee shall submit written notification to the Director at least thirty (30) days prior to the proposed transfer. This notification shall include an operating permit application form completed by the proposed new owner of the wastewater treatment system. The Director may request on a case-by-case basis that the proposed new owner submit a business plan, demonstrating management of the system to ensure its long-term viability. Upon the Director's approval of the transfer, an operating permit shall be issued to the new owner of the wastewater treatment system.

~~I.~~O. ~~I.~~ Possession of an operating permit does not convey a property right of any sort nor any exclusive privilege.

~~J.~~P. ~~J.~~ The permittee shall report any noncompliance with the terms and conditions for operating the wastewater treatment system as established in the operating permit. An oral report, by telephone or in person, must be provided to the Domestic Wastewater Program within twenty-four (24) hours of the time the permittee becomes aware of the noncompliance. A written report shall follow, by email, express mail, or hand-delivery to the Domestic Wastewater Program, within five (5) working days of the time the permittee becomes aware of the noncompliance. The written report shall include a description of the

noncompliance and its cause(s); the period of noncompliance, with exact dates and times; and, if the noncompliance has not yet been corrected, the length of time it is expected to continue, with what degree of severity, and the steps already taken or planned to reduce or eliminate the noncompliance and to prevent its reoccurrence.

Q. Closure of on-site wastewater treatment systems: When a structure served by an on-site wastewater treatment system is connected to a public sewer, the on-site wastewater treatment system shall be closed. Additionally, the Director may order the closure of a discontinued or abandoned on-site wastewater treatment system. Closure must meet the following requirements:

1. Sewage from the onsite wastewater treatment system shall be removed and disposed of in a lawful manner.

2. Electrical and mechanical components shall be disconnected and removed.

3. The top of any tank or containment structure shall be removed or collapsed, and a hole shall be punched in the bottom of the tank or containment structure if the bottom lies below the seasonal high groundwater table.

4. The tank or containment structure, or any cavity resulting from its removal, shall be filled with earth, sand, gravel, concrete, or other approved material.

5. The ground shall be re-graded to drain away from the closed area.

6. Both ends of the abandoned sewer pipe between the building and the septic tank shall be cut and plugged.

Written notification, providing the details of closure, shall be submitted to the Director within ~~**§ 302. Certified Operators**~~

7. ~~A~~thirty (30) days of the closure, as provided by Section 111 of these regulations.

§ 303. Operating Permit Modification to Accept Domestic Septage

A. Application

A wastewater treatment system with an existing operating permit as of the effective date of these regulations that wishes to accept domestic septage for treatment or storage must submit a permit modification application to the Director. A wastewater treatment system with an existing operating permit wishing to make substantial changes to its system or operations to accommodate the treatment or storage of domestic septage, such as physical site expansion, addition of a disposal works or appurtenant pipelines, septage holding tanks, or septage pumping or receiving systems, shall obtain a modification to their operating permit. A permit modification must be approved before any changes to facility operations commence. Application for an operating permit modification to accept, store, or treat septage must include the following minimum information:

1. a complete operating permit modification form, together with the appropriate fee;

2. existing permit number;

3. explanation of the modification requested;

4. an operation and maintenance manual for new wastewater treatment ~~system~~systems, system features, or related infrastructure;

5. a certification by the owner or operator that the septage-receiving facility will be operated in compliance with all applicable requirements;

6. a traffic plan that includes an estimate of the number of vehicles to enter and exit the facility each operating day;

7. an operating plan that includes the following minimum information:

    a. the hours of operation;

    b. proposed route(s) of access to the facility;

    c. a description of the treatment process and how it will septage loads will be added to existing waste streams;

    d. proposed service area;

    e. the volume of septage expected on a daily, weekly, and monthly basis, and an estimated annual volume;

    f. a detailed odor control plan explaining

        i. the procedures that shall be used to address and resolve any odor complaints;

        ii. the name, address, and telephone number of the person who shall be responsible for responding to odor complaints;

    g. site management techniques that shall be implemented to minimize odors;

    h. vector attraction reduction methods including, at a minimum, alkaline treatment of domestic septage to a pH of 12 or above for thirty (30) minutes;

    i. emergency procedures outlining actions to be taken by owners, operators, and staff in the event of foreseeable emergencies or reporting violations, including but not limited to:

        i. illegal disposal at the facility;

        ii. fires;

        iii. spills;

        iv. physical injury;

        v. equipment malfunctions; and

vi. contamination with incompatible materials or hazardous wastes; and

vii. any other best management practices to be implemented at the facility to ensure compliance with these regulations.

j. whether reclaimed water will be available for reuse, and how it will be made available, either through direct reuse, open conveyance, or pipeline conveyance.

B. Term

Permit modifications to accept, treat, or store septage may be issued for a term not to exceed the term of the applicable operating permit.

C. Permit Modification Conditions

1. The Director may require reasonable requirements as a permit modification to ensure the storage or treatment of domestic septage shall not create a public health or environmental nuisance or hazard nor pollute ground and surface waters.

2. The permittee, his agents, and employees, shall consent to the jurisdiction of the Navajo Nation and shall agree to abide by all laws of the Navajo Nation. Each application for permit modification and each permit modification that is issued shall contain the following statement to which the permittee must agree and subscribe for the application to be complete and the license to be valid:

"I content to the jurisdiction of the Navajo Nation with respect to all activities conducted pursuant to this permit modification and the Navajo Nation Domestic Wastewater Regulations. This consent shall be effective when a permit modification is issued and may not be withdrawn. This consent shall extend to and be binding upon all employees and agents, including contractors and subcontractors of permittee whose activities fall within the scope of the issued permit."

3. Permittees shall include the statement in Subsection (2) of this section as a term and condition of any contract or other agreement it executes for services to be performed or goods to be provided within the Navajo Nation in connection with the permit modification, and each party to any such contract or other agreement must agree and subscribe to said statement, substituting the name of the party for "permittee" as appropriate.

§ 304. Certified Operators

A. A new wastewater treatment system, not including small capacity on-site wastewater treatment systems, shall employ certified operators of the appropriate grade level and number, as determined by the Director based on the operating requirements of the system, before the operating permit may be issued. Operators may be certified in Arizona, New Mexico, or Utah.

B. An existing wastewater treatment system, not including small capacity on-site wastewater treatment systems, with operators who are not certified at the appropriate level or levels shall ensure that they obtain certification within the time specified as part of the terms and conditions of the operating permit. The permittee shall be given an opportunity to negotiate with the Director on the timeframe within which the operators are to obtain certification.

§ ~~303~~305. Operation and Maintenance

A. Each new and existing wastewater treatment system, not including small capacity on-site wastewater treatment systems, shall develop an Operation and Maintenance Manual ("O&M Manual"). The O&M Manual shall be reviewed and approved by the Director as part of each system's operating permit application, except as provided in Section ~~301~~302(C)(~~4~~), of these regulations, and except that the O&M Manual for a new or substantially modified system must first be submitted with the application package for the construction permit, pursuant to Section ~~202~~203(A~~).~~) of these regulations. A copy of the document shall be on site and readily accessible to inspectors from NNEPA~~,~~ upon their request. The O&M Manual shall contain, but is not limited to, the following information, and ~~should~~shall be updated as necessary:

1. schematics of the wastewater treatment system showing treatment processes, sewer mains, service lines, pumps, valves, and control systems;

2. standard operating procedures and staffing for the day-to-day routines of the system;

3. details about any manual, automatic, and semi-automatic controls for the system, and the procedures for troubleshooting pumps, valves, and treatment units;

4. ~~4.~~ safety procedures for the handling of chemicals used at the system;

5. ~~5.~~ sampling requirements and schedules; and

6. ~~6.~~ an emergency action plan.

B. Wastewater Treatment Systems:

1. The owner of a new or existing wastewater treatment system, with the exception of a small capacity on-site wastewater treatment system, shall properly operate and maintain the system in accordance with the recommendations of the manufacturer or designer of the system.

2. The system owner shall also ensure the following tasks are performed, as applicable, to protect human health and welfare and to prevent the pollution of ground water and surface water:

   a. pump accumulated residues, inspect and clean wastewater treatment and distribution components, and manage residues;

   b. clean, backwash, or replace effluent filters according to the manufacturer's instructions, and manage residues;

   c. inspect and clean the effluent baffle screen and pump tank, and properly dispose of cleaning residue;

   d. flush lateral lines and return flush water to the pretreatment headworks;

   e. inspect, remove and replace as necessary, and properly dispose of filter media;

   f. rod pressurized wastewater delivery lines and secondary distribution lines (for dosing

systems), and return cleaning water to the pretreatment headworks;

g. inspect and clean pump inlets and controls and return cleaning water to the pretreatment headworks;

h. implement corrective measures if anomalous ponding, dryness, noise, odor, or differential settling is observed;

i. inspect and monitor inspection and access ports, as applicable, to verify that operation is within expected limits for:

i. wastewater quality;

ii. pressurized dosing system;

iii. aggregate infiltration bed and mound system;

iv. wastewater delivery and engineered pad;

v. pressurized delivery system, filter, underdrain, and native soil absorption system;

vi. saturation condition status in peat and other media; and

vii. treatment system components.

j. inspect tanks, liners, ports, seals, piping, and appurtenances for water-tightness under all operational conditions;

k. manage vegetation in areas that contain components that may be damaged due to root invasion or animals;

l. maintain drainage, berms, protective barriers, cover materials, and similar features; and

m. maintain the integrity and accessibility of the reserve area to allow for repair or replacement of the on-site wastewater treatment system.

3. System tanks shall be cleaned before too much sludge or scum is allowed to accumulate and seriously reduce the tank volume settling depth. If either the settled solids or floating scum layer accumulate too close to the bottom of the outlet baffle or the sanitary tee pipe, solid particles will overflow into the absorption system and eventually clog the soil, thus ruining its absorption capacity. Although there are wide differences in the rate that sludge and scum accumulate, a septic tank for a private residence will generally require cleaning every three to five years. Actual measurement of scum and sludge accumulation is the only sure way to determine when a tank needs to be cleaned. Experience with a particular system may indicate the desirability of longer or shorter intervals between inspections.

4. The tank shall be pumped out if either the bottom of the floating scum mat is within three (3) inches of the bottom of the outlet device or the sludge level has built up to approximately twelve (12) inches from the bottom of the outlet device. Little long-term benefit is derived by pumping out only the

liquid waste in septic tanks. All three (3) wastewater components (scum, sludge, and liquid waste) shall be removed. Tanks shall not be washed or disinfected after pumping. A small amount of sludge should be left in the tank for seeding purposes. If a system is comprised of multiple tanks or tanks with multiple compartments, each tank or compartment shall be inspected and cleaned.

5. A professional servicing septic tanks shall conduct or oversee tank cleaning or maintenance, unless the owner is approved by the Director to do so. Owners may become certified to perform routine inspection, cleaning and maintenance activities identified by the Director, not to include septage pumping or transport, by passing a DWWP approved training course and registering with DWWP. Owner certifications will be valid for no less than three (3) years.

6. The digestion of sewage solids gives off explosive, asphyxiating gases. Therefore, extreme caution should be observed if entering a tank for cleaning or maintenance. Forced ventilation or oxygen masks and a safety harness should be used. Following septic tank cleaning, the interior surfaces of the tank shall be inspected with a bright light for leaks or cracks. Distribution boxes, if provided, shall be inspected and cleaned at the same time as the septic tank is cleaned.

7. Immediate replacement of broken-off inlet or outlet fittings in the septic tank is essential for the system's effective operation. On occasion, paper and solids become compacted in the vertical leg of an inlet sanitary tee. Corrective measures include replacement with a non-plugging sanitary tee of wide sweep design or a baffle.

8. The owner of an on-site wastewater treatment system shall maintain a written record of all inspection, cleaning, and maintenance tasks performed for the past five (5) years.

9. The functional operation of septic tanks is not improved by the addition of yeasts, disinfectants or other chemicals, and therefore use of these materials is not recommended.

10. Waste brine from water-softening units, soaps, detergents, bleaches, drain cleaners, and other similar materials, as normally used in a home or small commercial establishment, will have no appreciable adverse effect on a conventional system. If the septic tank is adequately sized, as required, the available dilution factor will suffice to overcome any harmful effects that might otherwise occur.

11. The economic use of water helps prevent the overloading of a conventional system, which could shorten its life and necessitate expensive repairs. Plumbing fixtures should be checked regularly to find and repair any leaks which can add substantial amounts of water to the system. Industrial wastes, and other liquids that may adversely affect the operation of the on-site wastewater disposal system, shall not be discharged into the system. Paper towels, facial tissue, newspaper, wrapping paper, disposable diapers, sanitary napkins, coffee grounds, rags, sticks, and similar materials must also be excluded from the septic tank because they do not readily decompose, and can clog both the plumbing and the absorption system.

12. Crushed, broken, or plugged distribution pipes shall be replaced.

13. In the event of a failed system, including but not limited to disposal fields, the owner shall remedy or replace the failed system within a reasonable time frame. If control of the system is transferred to another person prior to the remediation of a failed system, the transferee becomes responsible for remedying the failed system.

14. Inspection of Large Capacity On-site Wastewater systems:

a. All large capacity on-site wastewater treatment systems shall be inspected by or under the supervision of a septic service professional qualified in accordance with Subsection (2) of this section at least once a year to determine if the system needs emptying, maintenance, or repair. The on-site wastewater treatment system owner is responsible for ensuring such inspection is performed.

b. Septic service professionals shall possess working knowledge of the type of system being inspected and have at least one of the following certifications:

i. certification by the manufacturer for the type of unit being inspected;

ii. operator certification for small wastewater treatment systems, in accordance with Section 603 of these regulations;

iii. professional engineer licensed in Arizona, New Mexico, or Utah;

iv. certification or qualification as a septic service provider, such as an on-site system design, inspection, or maintenance professional, in Arizona, New Mexico, or Utah;

v. demonstration of a similar accreditation or certification or a combination of training and experience as approved by the Director.

c. Septic service professionals shall at a minimum:

i. conduct cleaning and maintenance tasks in accordance with the manufacturer's specification;

ii. submit inspection records as required by the Director;

iii. maintain a quality assurance plan and provide a copy to the Director upon request;

iv. notify the system owner of any condition violating Section 305(B)(2)-(4), (7), and (12) of these regulations within five (5) business days from the date of observation;

v. notify the system owner and the Director of any failed system within five (5) business days from the date of observation; and

vi. conduct septage pumping and transportation in accordance with Part VI (Domestic Septage Removal and Transportation License) of these regulations.

d. System owners are required to have a septic service professional conduct an annual inspection of the system in accordance with Subsection (14)(c) of this section. In addition, system owners are encouraged to conduct supplemental inspections to measure scum and sludge (solids) accumulations as follows:

i. scum can be measured with a long stick to which a weighted flap has been hinged, or any device that can be used to determine the bottom of the scum mat. The stick is

forced through the scum, the hinged flap falls into a horizontal position, and the stick is lifted until resistance from the bottom of the mat is felt. With the same tool, the distance to the bottom of the outlet device can be found.

ii. sludge can be measured with a long stick wrapped with rough white toweling, which is lowered into the bottom of the tank. The stick should be narrow enough in diameter so it can be lowered through the outlet device to avoid scum particles. After several minutes, if the stick is carefully removed, the height to which the solids have built up can be distinguished by black particles clinging to the toweling.~~§ 304~~

§ 306. Operating Requirements for Septage-Receiving Facilities

A. Capacity

A septage-receiving facility operator must ensure that adequate capacity exists for ultimate disposal or utilization of all septage stored at the facility.

B. Traffic

There must be fewer than ten (10) vehicle trips per day to the system in any eight (8)-hour period unless otherwise approved by the NNEPA.

C. Hours of Operation

The site operator shall limit the hours for unloading or loading of septage at a septage-receiving facility in a manner that prevents overloading. Septage receiving hours must be daylight hours only.

D. Dust Control

The site operator must control any fugitive dust from the facility that may impact surrounding residences or businesses.

E. Record Keeping

1. The septage-receiving facility shall be inspected by the permittee every six (6) months. The condition of the facility, any evidence of failure or leakage, repairs required and repairs performed must be recorded.

2. The permittee shall keep the following records for the duration of the permit:

a. date and time that septage was delivered to the facility;

b. amount of septage delivered to the facility;

c. name of the company or individual who delivered septage to the facility;

d. date and time that septage was pumped from the facility;

e. amount of septage pumped from the facility;

f. name of the company or individual who pumped septage from the facility; and

g. final disposition of septage pumped from the facility.

F. Reporting

An annual report detailing the activities for the previous year shall be submitted to the NNEPA by the permittee on or before January 31 of each year, on forms provided by the NNEPA. The report shall include the information required in Section 406(E) of these regulations, and any other details specified in the system license.

G. Operating Plan

All septage-receiving facilities shall be operated in conformance with a NNEPA-approved operating plan. The operating plan submitted by the permittee shall include all information that would enable supervisory personnel, operating personnel, and persons evaluating the operation of the facility to determine what sequence of operation, plans, diagrams, policies, procedures and legal requirements must be followed for orderly and successful operation on a daily and yearly basis. This plan shall be updated as necessary to address operational changes, which include but are not limited to:

1. the normal hours of operation of the facility;

2. proposed route(s) of access to the facility, standardized hose connections, and unloading provisions to minimize spills and ensure safe unloading operations;

3. storage provisions, including parameters and frequency for testing to demonstrate compliance (if needed and as determined by the NNEPA based on proposed volumes to be accepted);

4. proposed service area;

5. the volume of septage, in gallons, expected on a periodic basis, such as daily, weekly, or monthly, and the estimated annual volume;

6. description of record-keeping procedures;

7. detailed odor control plan, including the following information:

a. procedures that shall be used to address and resolve any odor complaints;

b. name, address and telephone number of the person(s) who shall be responsible for responding to odor complaints;

c. facility management techniques that shall be employed to minimize odors; and

d. any additional information required by the Director.

8. vector attraction reduction methods including, at a minimum, alkali treatment of domestic septage to a pH of 12 or above for 30 minutes;

9. emergency procedures outlining actions to be taken by the permittee and staff at the facility in the event of foreseeable emergencies or reporting violations, including but not limited to: illegal disposal at the facility, fires, spills, accidents, equipment malfunctions, and contamination with incompatible materials or hazardous wastes;

10. any other best management practices which shall be implemented at the facility to ensure compliance with these regulations.

§ 307. Entry and Inspections

A. Pursuant to NNCWA, 4 N.N.C. § 1381(B~~) (NNCWA § 901(b)),~~), and the NNSDWA, 22 N.N.C. § 2507(c)(1), the permittee shall allow the Director or his or her authorized representative (including an authorized contractor acting as a representative of the Director), upon presentation of his or her credentials, to:

1. enter upon the permittee's premises, where a regulated system~~, facility,~~ or activity is located or conducted, or where records are kept;

2. access, review, and copy any records that must be kept under the terms and conditions of an operating permit;

3. inspect at reasonable times any system, ~~facility,~~ equipment, practice, or operation regulated or required under the terms and conditions of an operating permit; and

4. sample, analyze, or monitor, at reasonable times, ~~for the purpose of assuring~~any substance or parameter at any location as necessary to ensure permit compliance or as otherwise authorized by the NNCWA~~, any substance or parameter at any location~~ or NNSDWA.

~~**§ 305. Responding to the Inspection Report**~~

~~(Reserved.)~~

~~**§ 306. Inventory**~~

~~(Reserved.)~~

~~**PART IV**~~
~~**MINIMUM DESIGN REQUIREMENTS**~~

~~**§ 401. General Provisions**~~

PART IV GENERAL PERMIT FOR SMALL CAPACITY ON-SITE WASTEWATER TREATMENT SYSTEMS

§ 401. Authority and Applicability

The Director will issue a general permit pursuant to the provisions in this Part IV to
~~These regulations shall~~ apply to ~~all new~~ small capacity on-site wastewater treatment systems ~~and to~~, including all substantial modifications to such systems.

§ 402. General Permit

The Director will issue a general permit to cover discharges from small capacity on-site wastewater treatment systems in accordance with Sections 403-409 of these regulations. All small capacity on-site wastewater treatment systems are required to obtain coverage under this general permit, unless the Director requires a site-specific permit.

§ 403. Administration

The general permit may be issued, modified, revoked and reissued, or terminated in accordance with the applicable requirements of Subpart 2 of the Uniform Rules. The draft and final general permits will be posted on the NNEPA website. The final permit will become effective sixty (60) days after it is posted on the website unless the general permit specifies otherwise. For purposes of judicial review, issuance of the general permit is considered a final agency action with respect to all aspects of the general permit except its applicability to an individual system owner requesting coverage under the general permit.

§ 404. Procedures

The following are the procedures for obtaining coverage for a small capacity on-site wastewater treatment system under the general permit:

A. All small capacity on-site wastewater treatment system owners seeking coverage under the general permit shall submit a completed Request for Coverage to the Director. Existing on-site system owners shall submit a Request for Coverage within one (1) year of the effective date of the general permit. A person wishing to install a new system after the effective date of the general permit shall apply for and receive coverage before beginning construction and installation. Requests for Coverage for new systems shall be submitted no fewer than sixty (60) days prior to the date that construction is scheduled to commence.

B. A Request for Coverage shall be made on forms approved and provided by the Director.

C. The Director will act on all Requests for Coverage within ninety (90) days of receipt and undertake a completeness review within forty-five (45) days. Therefore, within thirty (30) days after receipt of a coverage request, the Director will request any additional information necessary to process the Request for Coverage and the requestor shall submit the requested information within fifteen (15) days from the request

for additional information. If the requestor does not timely submit the requested information and this results in a delay that is beyond the forty-five (45)-day completeness review period, the ninety (90)-day period for a decision on a Request for Coverage will be extended by the number of additional days the requestor takes to submit the requested information beyond the forty-five (45)-day period. If the Director requests information after the thirty (30)-day period, the requestor shall still have fifteen (15) days to submit such information and the Director will still grant or deny the Request for Coverage within the ninety (90)-day period.

D. If the Director determines that a Request for Coverage is complete, s/he will notify the applicant in writing as soon as that determination is made. If the Director does not request additional information or provide notice of completeness within the forty-five (45) day completeness review period described in Subsection (C) of this section, the Request for Coverage will be deemed complete.

E. The Director will send a letter to the system owner stating whether a Request for Coverage has been approved or denied. The system is deemed covered by the general permit immediately upon receipt by the owner of the decision letter approving coverage. The decision letter is a final action for purposes of judicial review only for the issue of whether a small capacity on-site wastewater treatment system qualifies for coverage under the general permit.

F. Owners receiving an approval letter shall comply with all conditions and terms in the general permit. Owners shall be subject to enforcement action for failure to comply with the general permit, including if a small capacity on-site wastewater treatment system receiving coverage is constructed and is later determined not to qualify under the conditions and terms of the general permit.

G. Coverage under the general permit terminates if construction of the covered small capacity on-site wastewater treatment system does not commence within twenty-four (24) months after the date of the letter approving the Request for Coverage; if construction is discontinued for a period of twenty-four (24) months or more; or if construction is not complete within twenty-four (24) months from the commencement of construction.

H. Any system eligible to request coverage under the general permit may request to be excluded from the general permit by applying for a site-specific permit under Part II and Part III of these regulations.

§ 405. Information Required to Request Coverage under the General Permit

Information required to request coverage under the general permit shall include, but is not limited to, the following:

A. Owner name, address, telephone number, and email address;

B. System location (address, city/village, Chapter, Township, Range, Section);

C. System type;

D. System capacity as built;

E. System capacity to be used;

F. Name, title, organization, address, telephone number, and email address of person overseeing system installation and construction, or modification;

G. Construction start date and estimated completion date;

H. Construction plans that include, at a minimum, the following items:

1. plans and cross-sections of all components of the system;

2. lot size;

3. direction of north;

4. location and dimensions of roads, driveways, parking, and paved areas;

5. ground surface contours, relative elevations, or statement of grade;

6. any wells, springs, protection zones, ditches, and utility lines on the property;

7. proposed system drawn to scale with all dimensions shown, including:

a. location of the septic tank and drainfield;

b. design details of septic tank and soil absorption system;

c. liquid capacity of septic tank;

d. cleanout placement;

e. applicable isolation distances;

f. replacement area;

g. location of any well water sources for the building and their distance from the septic system;

h. location of all soil exploration pits, and percolation test holes cross-section of subsurface seepage device (trench detail) including: depth and width of excavation and size of gravel or stone used as fill depth of perforated drain line barrier used to separate gravel fill from backfill;

i. cross-section of subsurface seepage device (trench detail); and

j. location of all relevant access easements;

8. copy of system operation and maintenance manual;

9. treatment performance anticipated for the proposed design;

10. septic tank plans and name of manufacturer, as applicable;

11. percolation test report and soil analysis; and

12. any other information requested by the Director.

§ 406. Transfer

A. Approval of coverage under the general permit shall not be transferred to any person except after notice to the Director. A permittee desiring to transfer approval of coverage under the general permit to a new owner must submit to the Director a completed Transfer of Coverage Request form, signed by both the permittee and new owner, and the applicable fee. The Transfer of Coverage Request form provided by the Director shall include a statement to be signed by the transferee stating that the transferee will abide by all conditions of the general permit. The transfer shall become effective upon receipt by the Director of a completed Transfer of Coverage Request form.

B. The permittee must familiarize the person who is assuming control of the permitted system with the Domestic Wastewater Program, these regulations, and the general permit and provide the transferee with copies of the:

1. general permit;

2. letter from the Director stating that the system was approved for coverage under the general permit; and

3. Request for Coverage and all accompanying documents submitted for the system.

§ 407. Denial or Revocation

The Director may revoke or deny a Request for Coverage under the general permit for just cause. Examples include, but are not limited to:

A. Construction or continued use of a small capacity on-site wastewater treatment system that threatens public health or the environment;

B. The misrepresentation or concealment of a material fact in information submitted to the DWWP; or

C. Failure to meet conditions of the general permit, these regulations, or any applicable Navajo or federal laws.

§ 408. Site-Specific Permit

The Director may require a system to apply for and obtain a site-specific construction or operation permit under Part II or Part III of these regulations. Examples of when a site-specific permit may be required include, but are not limited to:

A. The small capacity on-site wastewater treatment system is not in compliance with the terms and conditions of the general permit;

B. Circumstances have changed since the time of the Request for Coverage so that the discharge is no longer appropriately controlled under the general permit; or

C. The discharge is found by the Director to create or contribute to a public health hazard or nuisance, to violate any provision of the NNCWA or NNSDWA, or to deviate significantly from the general permit.

§ 409. Director Review of General Permit

The Director will review the general permit issued under this Part at least once every ten (10) years to determine whether it should be maintained without change, modified, revoked and reissued, or terminated.

PART V MINIMUM DESIGN REQUIREMENTS

§ 501. Applicability

The provisions in Part V apply to all new wastewater treatment systems, including systems that generate or blend reclaimed water, and all substantial modifications to existing wastewater treatment systems~~.~~, other than small capacity on-site wastewater treatment systems.

§ 502. General Provisions

A. Pursuant to Section ~~201(A),~~202 of these regulations, the Director shall take ~~the~~these Minimum Design Requirements into account when reviewing construction permit applications. Additionally, and pursuant to Section ~~201(E),~~110 of these regulations, the Director may require an existing wastewater treatment system to physically upgrade, and thereby meet the Minimum Design Requirements, when the system is found to create or contribute to a public health hazard or to violate a provision of the NNCWA, 4 N.N.C. §§ 1321 and 1331, and the Director determines that the upgrade is necessary to correct or eliminate the hazardous condition or to otherwise bring the wastewater treatment system into compliance with the NNCWA and these regulations.

B. Location and Installation:

1. A wastewater treatment system shall be so located that, with regular maintenance, it will function in a safe and sanitary manner and will not create a nuisance or a public health hazard, nor ~~compromise the~~pollute ground or surface waters~~ of the Navajo Nation.~~. An on-site wastewater treatment system shall be located on the same lot as the building it serves unless the system is sited on a perpetual utility easement and right-of-way located on an adjacent or nearby lot. Any such easement and right-of-way shall be recorded in the form of a deed which:

   a. conveys the easement and right-of-way from the record owners of the burdened parcel to the owners of the parcel to be developed;

   b. includes a full legal description of the easement area prepared by a ~~licensed~~ land surveyor licensed in Arizona, New Mexico, or Utah, or by a professional engineer licensed in Arizona,

New Mexico, or Utah and qualified in surveying;

c. conveys all appurtenant easements for access, construction, operation and maintenance, repair, collection and drainage, etc.;

d. includes setbacks as required in Section ~~407(E);~~508(E) of these regulations; and

e. records conditions, covenants, and restrictions as follows:

i. that the easement shall bind and inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the grantor and grantee, and that all specifications of the easement shall pertain to and run with the land.

ii. that the use of the area of the absorption bed by the grantor shall be restricted from uses which are incompatible with its proper operation, such as structures, vehicular parking, roadways, drainage courses, and wells; and

iii. that the grantee shall maintain the right to do all things reasonably necessary to install, maintain, inspect, repair, and/or replace the septic tank or absorption bed within the boundaries of the easement.

2. To determine a suitable location for a wastewater treatment system, due consideration shall be given to such factors as the size and shape of the lot, the slope of its natural and finished grade, the location of existing or future water supplies, the depth to groundwater and bedrock, soil characteristics and depth, potential flooding or storm catchment issues, any anticipated expansion of the system, and its connection in the future to a public sewer system.

3. A wastewater treatment system located within a delineated wellhead protection area shall meet the requirements of Part XVII of the NNPDWR (Wellhead Protection Regulations).

§ ~~402~~**503**. Wastewater Quantity

A wastewater collection and conveyance system shall be designed for a peak sewage flow that is at least eighty percent (80%) of the peak water usage. Methods of calculating peak sewage flow for residential and non-residential establishments are found below. The Director may also accept other estimates of wastewater quantity, and the calculation of peak flows based upon them, when they are accompanied by adequate justification. In no event shall the wastewater treatment system be designed such that the anticipated peak daily sewage flow exceeds the capacity for which the system is designed.

A. Residential establishments: Estimates of peak sewage flow shall be based on the water usage of the users of the wastewater treatment system, as multiplied by an appropriate peaking factor. The responsible engineer shall designate and justify the peaking factor in his or her engineering report, pursuant to Section ~~206~~208(A)(2)(c~~). –~~) of these regulations.

In the absence of water usage data, the peak sewage flow may be calculated as follows, where H is the number of single-family dwellings and Q is gallons per minute:

1. for one hundred (100) or fewer single-family dwellings, using the equation ~~Q = 8*H0.6336;~~ Q = 8*H0.6336;

2. for more than one hundred (100) single-family dwellings, using the equation

   Q = 0.8[185+1.21(H-100)].

B. Multiple-family dwellings and non-residential establishments:
The peak sewage flow may be calculated by multiplying the average daily usage for a given establishment, calculated according to Table 1, by an appropriate peaking factor. The responsible engineer shall designate and justify the peaking factor in his or her engineering report, pursuant to Section ~~206~~208(A)(2)(c~~).~~) of these regulations.

Table 1. Average Quantity of Domestic Wastewater

Type of Establishment	**Gallons per Day**
Airports	4 per passenger 10 per employee
Beauty & Barber ~~Shop~~ Shops	75 per service chair
Bowling Alleys a. ~~a.~~ with snack bar* ~~b. no~~ ~~a.~~b. without snack bar	100 per alley 85 per alley
Campgrounds a. ~~a.~~ day, no cooking facilities b. ~~b.~~ overnight, with flush toilets c. ~~c.~~ overnight, with flush toilets and showers d. ~~d.~~ luxury resort e. seasonal, with flush toilets and showers	30 per camping unit 75 per camping unit 150 per camping unit 125 per person 50 per person
Churches a. ~~a.~~ sanctuaries b. ~~b.~~ with kitchen waste	2 per seat 7 per seat
Apartments or Multiple Family Dwellings	75 per person
Country Clubs	100 per resident member 10 per nonresident member
Dentists' Offices	200 per chair 35 per employee

Doctors' Offices	250 per doctor
Fairgrounds	1 per person (max. attendance)
Fire Stations (24-hour staffing)	45 per employee
Gyms	25 per member
Hospitals*	250 per bed
Hotels, Motels, and Resorts (exclusive of laundries, lounges, and restaurants)	75 per room
Industrial Buildings (exclusive of industrial waste) a. ~~a.~~ with showers ~~b. no~~ ~~a.~~b. without showers	 35 per employee 25 per employee
Laundromats (if no manufacturer's recommendation)	400 per commercial washer
Mobile Home/Trailer Parks	250 per space
Nursing Homes*	200 per bed
Office Buildings and Business Establishments (sanitary wastes only, per 8-hour shift)	15 per employee
Parks (temporary use) a. ~~a.~~ picnic, with flush toilets only b. ~~b.~~ RV, with water and sewer hook-ups c. ~~c.~~ RV, no water and sewer hook-ups	 20 per parking space 100 per space 50 per space
Restaurants* a. ~~a.~~ not 24-hour service b. ~~b.~~ with 24-hour service	 35 per seat 50 per seat
Schools* a. ~~a.~~ boarding b. ~~b.~~ day, no cafeteria, gyms, or showers c. ~~c.~~ day, with cafeteria, no gyms, no showers d. ~~d.~~ day, with cafeteria, gyms, and showers	 75 per student 15 per student 20 per student 25 per student
Service Stations and Convenience Stores with uni-sex restrooms	400 per toilet 800 per toilet
Shopping Center (no food or laundry)	0.1 per square foot of retail space
Stores	20 per employee
Swimming Pools (public)	10 per person

Theaters, Auditoriums	5 per seat
Veterinary Clinic	250 per practitioner 15 per employee 20 per kennel, stall, or ~~stage~~cage
Visitor Centers	5 per visitor

* No commercial food waste disposal unit shall be connected to an on-site wastewater treatment system unless first approved by the Director.

§ ~~403~~504. Wastewater Quality

A. Wastewater treatment shall be designed for at least 0.17 pounds of BOD_5 per capita per day, and 0.20 pounds of TSS per capita per day, unless alternate designs are justified.

B. Domestic septage and leachate, if discharged to a wastewater treatment system, may contribute significant organic load and other waste materials, which can in turn cause operational problems and non-compliance with NPDES permit limitations. If septage or leachate is to be so discharged, compliance with septage disposal regulations promulgated under the NNCWA is required, and all design data and their underlying assumptions must be provided for the Director's review.

C. Data from existing wastewater treatment systems with characteristics similar to those of a new wastewater treatment system may be utilized for the new system if a thorough analysis of the data is conducted, adequately documented, and provided for the Director's review.

§ ~~404~~505. Wastewater Collection and Conveyance Systems

A. ~~A.~~ General Requirements~~:~~. A wastewater collection and conveyance system shall be designed, constructed, and operated so as to:

1. provide adequate wastewater flow capacity for the planned service area;

2. minimize sedimentation, blockage, and erosion through maintenance of proper flow velocities throughout the system;

3. prevent releases of sewage to the soil surface through appropriate sizing, capacities, and inflow and infiltration prevention measures throughout the system;

4. protect water quality through minimization of exfiltration losses from the system;

5. provide for adequate inspection, maintenance, testing, and accessibility;

6. maintain structural integrity throughout the system; and

7. minimize, throughout the system, the occurrence of a septic condition.

B. ~~B.~~ A wastewater collection and conveyance system shall be designed for peak sewage flow, as calculated per Section 402~~.~~ of these regulations. For a lift station serving fewer than six hundred (600) single-family

dwellings, pumps may be sized for peak dry weather ~~flow,~~flown $Qp = 17(H)^{0.42}$ or $11.2(population)^{0.42}$, where H is the number of single-family dwellings and Q is gallons per minute. Allowances shall be provided for infiltration and wet weather flow.

C. ~~C.~~ Pipe Size and Slope~~:~~. The minimum size of a sewer main shall be eight (8) inches in diameter. Six-(6)-inch ~~(6 inch)~~ diameter sewer mains may be used on dead-end lines, such as those for cul-de-sacs that have no potential for extension and that do not exceed four hundred (400) feet in length. A sewer main shall be designed so as to operate at no more than seventy-five percent (75%) of capacity in peak dry weather flow conditions.

Further, a sewer main shall be designed and constructed with such a slope as to ensure a mean velocity, when flowing at capacity, of not less than two (2) feet per second, utilizing Manning's formula and a roughness coefficient of 0.013. The minimum slope for a sewer main shall not be less than 0.4% for an eight- (8)-inch main and one percent (1%) for a six- (6)-inch main. Steep slopes leading to a flow velocity greater than ten (10) feet per second shall be avoided. If steep slopes are unavoidable, a sewer main shall be designed so as to resist damage from high velocity flows.

Service lines shall have a minimum slope of two percent (2%). Cleanouts shall be placed at the house, at hundred- (100)-foot intervals, and at any in-line bend greater than forty-five degrees (45°).

D. ~~D.~~ Separation Requirements~~:~~. Sewer lines shall be separated from water lines in accordance with NNPDWR § 1508(D).

E. ~~E.~~ Materials~~:~~. Sewer pipes and pipe-fittings must conform to applicable ASTM and American Water Works Association standards. Ductile iron pipe is required when a sewer line is located within roadways with fewer than three (3) feet of cover and in all other areas with fewer than two (2) feet of cover.

F. ~~F.~~ Depth~~:~~. Sewage collection lines must be deep enough to provide at least three (3) feet of soil cover within roadways and two (2) feet of soil cover in other areas. Also, the sewer depth shall provide at least a two percent (2%) slope for all connecting service lines. Collection lines located within roadways with fewer than two (2) feet of cover are prohibited.

G. ~~G.~~ Testing~~:~~. All newly ~~-~~constructed sewer lines shall be tested for the following:

1. deflection on all flexible pipes, to ensure that the installation meets or exceeds the manufacturer's recommendations;

2. leakage, following applicable ASTM standards; and

3. uniform slope, by lamp lighting, remote camera, or similar method approved by the Director.

H. ~~H.~~ Manholes~~:~~.

1. Manholes shall be located at each change of sewer line grade, size, or alignment; at the end of each line; at all pipe intersections; and at intervals not greater than four hundred (400) feet for sewers fifteen (15) inches or fewer in diameter, and five hundred (500) feet for sewers greater than fifteen (15) inches to thirty (30) inches in diameter. Greater intervals may be permitted in larger sewers. Manholes shall not be located in depressions or drainages, or within four (4) feet of the roadway gutter.

2. Straight through manholes shall have the same slope as the adjoining pipe and should consist of the lower half of the pipeline with a grout shelf. All other manholes shall provide at least a 0.1 foot drop through the manhole. In the case of a lateral entering a straight through manhole, the lateral must have a 0.1 foot drop from the lateral inlet to the manhole outlet. Bending inverts shall be formed so that the transition is smooth and the flow remains in the channel without ponding or dropping solids.

3. Whenever an invert cannot be formed for an incoming line, a drop manhole shall be constructed. The maximum in-manhole drop shall be limited to two (2) feet.

4. Manholes shall be at least four (4) feet in inside diameter, and constructed of sufficient strength to withstand traffic. Manholes located outside of roadways shall have a rim elevation approximately six (6) inches higher than the surrounding land surface. Steps shall be provided for all manholes and shall be spaced vertically a maximum of sixteen (16) inches center to center.

5. Service lines shall not enter a manhole, but shall enter the main line at least two (2) feet away from the manhole.

6. Cleanouts may be permitted in lieu of a manhole on certain dead end lines and stub-outs if they are shorter than two hundred (200) feet and serve fewer than ten (10) homes.

7. Metering manholes, if installed, shall be the straight through type, with the lower half of the pipe forming the invert. At least fifty (50) feet of pipe on either side of the metering manhole shall be at the same slope.

8. Manholes shall be tested for water tightness. Testing procedures and acceptance criteria must be included in the construction specifications, pursuant to Section ~~205~~207(A)(2)(c~~).~~) of these regulations, to be reviewed and accepted by the Director as part of the construction permit application process. The responsible engineer shall certify that the test results meet the approved acceptance criteria, and shall include those test results in the final inspection package submitted pursuant to Section ~~208~~210(B)(2~~).~~) of these regulations.

I. ~~I.~~ Force Mains~~:~~. The installation of force mains is not encouraged. If the situation warrants, however, a force main shall be designed and installed so as to meet the following requirements:

1. Flow velocity shall be a minimum of three (3) feet per second and maximum of seven (7) feet per second.

2. Appropriate valves and controls shall be provided to prevent drain back to the lift station. The control system may, however, allow manual or automatic drain back as necessary to drain the sewer back to the lift station during cold weather to prevent freezing.

3. Air release valves shall be provided at high points along the line to eliminate air accumulation and prevent vacuum during drain back.

4. Joint restraints and thrust blocks shall be provided to prevent the movement of force mains due to water hammer and pressure surge.

J. ~~J.~~ Lift Stations: A lift station shall include the following components:

1. At least two (2) pumps, each with the capacity and arrangement to pump the design flow independently. If they are not grinder pumps, they shall be capable of passing a sphere 2.5 inches in diameter.

2. An alternate power source or a standby generator.

3. A wet well with adequate capacity, but that will not allow sewage retention of over thirty (30) minutes so as to prevent a septic condition. Measures shall be taken to prevent the formation of hydrogen sulfide. An alarm system to indicate excessively high or low levels of sewage in the wet well.

~~1. An alarm system to indicate excessively high or low levels of sewage in the wet well.~~

K. ~~K.~~ Revegetation~~:~~. Within the disturbed area of a new or renovated wastewater collection and conveyance system, care shall be taken not to cover the exposed soil with plant species having roots that are likely to reach and damage the sewer system, impair its operations, or prevent visual and vehicular access to any manhole.

§ ~~405~~506. Municipal Wastewater Treatment Facilities

A. General Requirements~~:~~. A municipal wastewater treatment facility shall be designed, constructed, and operated so as to ensure the greatest degree of discharge reduction achievable through use of the best available demonstrated control technology, treatment processes, operating methods, or other alternatives, including, where practical, a technology permitting no discharge of pollutants. To determine how to achieve the best performance possible, the Director shall take into account any treatment process contributing to the discharge, site-specific hydrologic and geologic characteristics and other environmental factors, opportunities for water conservation or augmentation, and the economic and environmental impacts of the use of alternative technologies, processes, or operating methods on an industry-wide basis. To this end:

1. The Director may specify in the operating permit, pursuant to Section ~~301~~302 of these regulations, alert levels, discharge limitations, design specifications, and operation and maintenance requirements, based on information provided by the owner or operator of the facility, applicable NNEPA regulations, and the Director's determination of industry-wide best practices.

2. Pursuant to Section ~~302~~304 of these regulations, the permittee shall ensure that the facility is operated by a person who is appropriately certified, at the level determined by the Director.

3. Pursuant to Section ~~303~~305 of these regulations, the owner or operator of the facility shall maintain, on site and readily accessible, an approved and updated O&M Manual.

4. The owner or operator of the facility shall not bypass or release sewage or partially treated sewage that has not completed the treatment process.

5. The owner or operator of the facility shall not allow the facility to emit an offensive odor on a persistent basis that extends beyond the setback distances provided in the design.

B. Treatment Performance Requirements~~:~~. The owner or operator of a new municipal wastewater treatment facility shall ensure that the facility meets the following treatment performance requirements upon discharge

of the treated wastewater at the outfall:

1. Secondary Treatment Levels:

   a. BOD5 is less than thirty (30) mg/l (thirty-day average) and forty-five (45) mg/l (seven-day average), or CBOD5 is less than twenty-five (25) mg/l (thirty-day average) and forty (40) mg/l (7-day average);

   b. TSS is less than thirty (30) mg/l (thirty-day average) and forty-five (45) mg/l (seven-day average);

   c. pH is maintained between six (6.0) and nine (9.0) standard units; and

   d. the removal efficiency is eighty-five percent (85%) for BOD5, CBOD5, and TSS.

2. Total nitrogen in the treated wastewater is less than ten (10) mg/l (five- (5)-month rolling geometric mean). If an applicant demonstrates, using appropriate monitoring, that soil aquifer treatment will produce a total nitrogen concentration of less than ten (10) mg/l in wastewater that percolates to groundwater, the Director may approve soil aquifer treatment for removal of total nitrogen as an alternative to meeting the treatment performance requirement of ten (10) mg/l at the outfall.

3. Pathogen ~~removal:~~Removal.

   a. For a municipal wastewater treatment facility with a design flow of fewer than two hundred fifty thousand (250,000) gallons per day, at a site where the depth to the seasonal high groundwater table is greater than twenty (20) feet and there is no karstic or fractured bedrock at the surface:

      i. ~~The~~the concentration of fecal coliform organisms in four of the wastewater samples collected during a week is less than two hundred (200) cfu/100 ml, or the concentration of E. Coli bacteria in four (4) of the wastewater samples collected during the week is less than one hundred twenty-six (126) cfu/100 ml, based on a sampling frequency of seven (7) daily samples per week;

      ii. the single sample maximum concentration of fecal coliform organisms in a wastewater sample is not greater than eight hundred (800) cfu/100 ml, or the single sample maximum concentration of E. Coli bacteria in a wastewater sample is not greater than five hundred four (504) cfu/100 ml; and

      iii. an owner or operator of a facility may request a reduction in the monitoring frequency required in Section ~~405~~506(B)(3)(a)(i) of these regulations if equipment is installed to continuously monitor an alternative indicator parameter, and the owner or operator demonstrates that the continuous monitoring will ensure the reliable production of wastewater meeting, at the discharge point, the concentration levels specified in Section ~~405~~506(B)(3)(a)(i) and (ii~~).~~) of these regulation.

   b. For any other municipal wastewater treatment facility:

      i. ~~No~~no fecal coliform organisms, or no E. Coli bacteria, are detected in four (4) of the wastewater samples collected during the week, based on a mandatory sampling

frequency of seven (7) daily samples per week;

ii. the single sample maximum concentration of fecal coliform organisms in a wastewater sample is not greater than twenty-three (23) cfu/100 ml, or the single sample maximum concentration of E. Coli is not greater than fifteen (15) cfu/100 ml; and

iii. the owner or operator of the facility may request a reduction in the monitoring frequency required in Section ~~405~~506(B)(3)(b)(i) of these regulations if equipment is installed to continuously monitor an alternative indicator parameter, and the owner or operator demonstrates that the continuous monitoring will ensure the reliable production of wastewater meeting, at the discharge point, the concentration levels of Section ~~405~~506(B)(3)(b)(i) or (ii~~).~~) of these regulations.

c. The owner or operator may use unit treatment processes, such as chlorination-dechlorination, ultraviolet, or ozone to achieve the pathogen removal performance requirements specified in Section ~~405~~506(B)(3)(a)(i) and (ii) and ~~Section 405(B)(3)((~~b)(i) and (ii~~).~~) of these regulations.

d. The Director may approve soil aquifer treatment for the removal of fecal coliform or E. Coli bacteria as an alternative to meeting the treatment performance requirements of Section ~~405~~506(B)(3)(a)(i) and (ii) or ~~Section 405(B)(3)((~~b)(i) and (ii~~),~~) of these regulations, if the soil aquifer treatment process will produce, in wastewater that percolates to groundwater, a fecal coliform or E. Coli bacteria concentration less than that allowed under Section ~~405~~506(B)(3)(a)(i) and (ii) or ~~Section 405(B)(3)((~~b)(i) and (ii~~).~~) of these regulations.

4. A municipal wastewater treatment facility shall remove the following pollutants to the greatest extent possible:

a. ~~Substances~~substances listed by the Secretary of the U.S. Department of Health and Human Services pursuant to 42 U.S.C. § 241(b)(4) (most recent biennial report), which are substances known to be carcinogens or may be reasonably anticipated to be carcinogens, and

b. ~~Substances~~substances listed in 40 C.F.R. § 261.33(e) ("acute hazardous wastes"), as updated from time to time, regardless of whether the substance is a "hazardous waste" subject to regulation under the Resource Conservation Recovery Act, 42 U.S.C. §§ 6901 *et seq.*

5. The requirements of Section ~~405~~506(B)(4) of these regulations shall be met by achieving pretreatment standards through:

a. setting, monitoring, and enforcing limits on pollutant concentrations prior to their release into a sewage system;

b. meeting the pretreatment standards promulgated under NNCWA, 4 N.N.C. § 1327 ~~(NNCWA § 307);~~; and/or

c. for municipal wastewater treatment facilities without significant input from industrial discharges, conducting periodic monitoring to detect industrial discharges.

6. An owner or operator of a municipal wastewater treatment facility shall minimize trihalomethane compounds (generated as disinfection byproducts) by using chlorination-dechlorination, ultraviolet, or ozone as the disinfection system, or by using a technology demonstrated to have an equivalent or better performance for removing or preventing trihalomethane compounds.

7. The maximum seepage rate shall be fewer than five hundred fifty (550) gallons per day per acre for all containment structures within a treatment works. A municipal wastewater treatment facility that consists solely of containment structures and has no other form of discharge shall be considered to meet the requirements of this Section ~~405~~506 if the seepage rate is kept below five hundred fifty (550) gallons per day per acre.

C. An existing municipal wastewater treatment facility shall not be required to implement physical upgrades to meet the requirements of Section ~~405(B)~~506(B) of these regulations unless the facility is found by the Director to create or contribute to a public health hazard or to violate any provision of the NNCWA. In addition, as provided by Section ~~201(A),~~202 of these regulations, when a substantial modification to an existing municipal wastewater treatment facility is proposed, the Director may require the facility to comply with the requirements of ~~§ 405(B)~~Section 506(B) of these regulations unless adequate justification is provided for obtaining relief from those requirements.

§ ~~406~~507. Wastewater Lagoon Systems

A wastewater lagoon system shall be of the total retention type and adhere to the requirements listed below. As provided by Sections ~~201(A)~~202 and ~~202(B),~~203 of these regulations, variations from these requirements may be approved by the Director on a case-by-case basis.

A. Siting~~:~~. The lagoons shall be located downhill from the proposed service area such that the wastewater will flow under gravity and lift stations are not necessary. Other factors to be considered include future development, wind direction, surface runoff, and site access.

B. Configuration~~:~~. A common configuration of a lagoon system is a three~~-~~ (3)-cell system comprising two (2) treatment cells and one disposal (seepage) cell. More treatment cells and/or more disposal cells may be added, as warranted, at the discretion of the responsible engineer.

C. Sizing~~:~~. A lagoon system shall be sized small enough to maintain adequate water in the treatment cells and big enough to remain of the total retention type.

D. Organic ~~loading:~~ Loading. Lagoon surface loading rates in the primary treatment cell shall be ~~less~~fewer than ~~one~~on hundred fifty (150) pounds of BOD5 per acre per day, and such that mechanical equipment is not required.

E. Treatment Cells~~:~~. Seepage from the treatment cells shall be minimized by installing a compacted soil liner, a synthetic liner, or other liner system. Seepage from the liner shall be fewer than five hundred fifty (550) gallons per acre per day. Depending on the soil and groundwater conditions at the site of an individual lagoon system, a higher seepage rate for a compacted soil liner may be approved by the Director, on a case-by-case basis.

1. Compacted soil liners shall be:

   a. resistant to swelling, shrinking, and cracking;

b. at least one (1) foot thick, compacted to a uniform density of ninety-five (95%) percent of the Standard Proctor Density under ASTM D698; and

c. protected upon installation to prevent desiccation.

2. Synthetic liners shall be:

a. made of at least thirty- (30)-mil ~~(30-mil)~~ geomembrane or sixty- ~~mil~~ (60-)-mil~~)~~ high density polyethylene, or a comparable substitute, that has a seepage rate of fewer than five hundred fifty (550) gallons per acre per day;

b. chemically compatible with the wastewater;

c. resistant to the ultraviolet rays in sunlight; and

d. anchored in an engineered anchor trench.

3. A construction quality assurance and quality control program shall be developed to address site and sub-grade preparation, inspection procedures, field testing, laboratory testing, and final inspection to ensure the functional integrity of the liner.

F. Disposal ~~cell:~~Cell. If the disposal cell is unlined and utilizes seepage as a disposal method in addition to evaporation, the design of the system must consider the seasonal dry and wet cycles to maintain the capacity of the cell. Permeability of soil in the disposal cell shall not exceed one hundred (100) feet per year.

G. Soil ~~exploration:~~ Exploration. Soil exploration for a wastewater lagoon system shall consist of the following, at a minimum:

1. soil borings to ten (10) feet below the lagoon floor, one (1) in each treatment cell and two (2) in each disposal cell, as documented by borehole logs;

2. sieve analysis and Atterberg limits for soil classification, with documentation of each soil type encountered;

3. Proctor compaction curves (ASTM D698 or D1557) for the representative soils to be utilized for dike construction and soil liner;

4. results of permeability tests, performed on the representative soils to be utilized for the compacted soil liner on the treatment cells and the bottom soil of the disposal cell; and

5. strength parameters for the representative soils to be utilized for dike construction if the dike is higher than ten (10) feet above the natural ground.

H. Dikes~~:~~. Dikes shall be earthen embankments compacted to a uniform density of at least ninety-five percent (95%) of the Standard Proctor Density (ASTM D698). Their top width shall be at least twelve (12) feet. Their side slopes shall be stable. If the dike is higher than ten (10) feet above the natural ground, the slope stability of the dike shall be evaluated.

I. Freeboard:. A minimum freeboard of three (3) feet shall be maintained at all times.

J. Fencing:. Lagoons shall be fenced to restrict access to authorized personnel only. The fence shall be located outside the downstream toe of the dike to allow for maintenance of the downstream slope. Warning signs shall be placed on the gate and around the perimeter.

K. Closure Requirements:. Pursuant to Section 201(F),111 of these regulations, the owner or operator shall notify the Director in writing of his or her intent to close the wastewater lagoon system, and shall provide a closure plan. The Director must approve the plan before any work begins in the field.

The closure plan shall address the need to inspect the liner for evidence of holes, tears or cracks, or defective seams. If evidence of a potential leak is discovered, its extent and effect on groundwater shall be investigated, and a groundwater remediation plan must be provided as necessary for the Director's review and approval. If there is no evidence of leakage, the liner shall be covered in place if the lagoon is below ground, or removed and disposed of elsewhere if the lagoon is above ground. The lagoon shall be filled with dirt and graded to prevent the impoundment of water.

The engineer supervising the lagoon system closure must notify the Director, in writing and within ninety (90) days of approval of the closure plan, that the work in the field has followed the approved plan and is now complete.

~~§ 407~~

§ 508. On-Site Wastewater Treatment Systems

A. Soil and Groundwater Requirements

1. Soil and Bedrock Requirements:.

a. In an area where an on-site wastewater treatment system is to be constructed, the soil cover must be adequate to ensure at least forty-eight (48) inches of soil between the bottom of the absorption system excavation and bedrock formations or impervious strata. For the purposes of these regulations, soil or bedrock formations are unsuitable if:

i. they are so slowly permeable that they effectively prevent the downward passage of effluent, or

ii. they exhibit open joints or solution channels that permit such rapid flow that effluent is not renovated. These formations exhibit coarse particles such as gravel, cobbles, or angular rock fragments with insufficient soil to fill the voids between the particles. Moreover, solid or fractured bedrock such as shale, sandstone, limestone, basalt, or granite is unacceptable for an absorption system.

b. Suitable soil for an absorption system meets the following criteria:

i. it has the capacity to adequately disperse the designed effluent loading, as determined by field percolation rates or by other approved soil tests;

ii. it does not exhibit swelling or collapsing (which would inhibit the flow and renovation of effluent);

iii. it does not visually exhibit a jointed or fractured pattern of underlying bedrock;

iv. it is not consolidated, cemented, or indurated, or plugged by a buildup of secondary deposited calcium carbonate (caliche); and

v. it is an effective filter of effluent, within its depth, for the removal of pathogenic organisms.

2. Groundwater Requirements~~:~~.

a. In areas where an absorption system is to be constructed, the anticipated maximum groundwater table shall be at least twenty-four (24) inches below the bottom of the absorption system excavation and at least forty-eight (48) inches below finished grade.

b. The maximum groundwater table shall be determined by one or more of the following methods:

i. direct visual observation of the maximum groundwater table in a soil exploration pit;

ii. direct visual observation, in a soil exploration pit, of salt crystals left by the maximum groundwater table or of mottled coloration due to chemically reduced iron in the soil; and/or

iii. regular monitoring of the groundwater table or "groundwater table, perched" in an observation well for a period of one year, or for the period of maximum groundwater table. Groundwater monitoring shall be required where the anticipated maximum groundwater table, including an irrigation-induced water table, might be expected to rise closer than forty-eight (48) inches to the bottom of an on-site wastewater system, or to the bottom of any alternative site for such a system.

c. If, over the full operating life of an on-site wastewater treatment system, the highest elevation that the top of the groundwater table or "groundwater table, perched" is anticipated to reach for any reason, including an irrigation-induced water table, within twenty-four (24) inches of the bottom of the absorption system excavation, the use of a conventional system in the area under consideration shall be prohibited.

d. Historical groundwater and climatological records or other information may be consulted for each site proposed for an on-site wastewater treatment system and may be used to adjust the observed maximum groundwater table elevation to determine the anticipated maximum groundwater table elevation.

3. Soil Exploration Requirements~~:~~. Suitable soil exploration pits, of sufficient size to permit visual inspection, and to a minimum depth of ten (10) feet or at least forty-eight (48) inches below the bottom of the proposed on-site wastewater treatment system, shall be dug at each absorption system site to determine the groundwater table and subsurface soil and bedrock conditions. A log of the soil and bedrock formations thus encountered must be submitted to the Director, describing the texture, structure, and depth of each soil type, and indicating the maximum elevation of the groundwater table and the depth of any groundwater encountered. Soil logs should be prepared in accordance

with the U.S. Department of Agriculture Soil Classification System.

4. Percolation Test Requirements~~:~~. At least one (1) stabilized percolation test for a design flow of fewer than two thousand (2,000) gallons per day, or three (3) tests if the design flow will be of or greater than two thousand (2,000) gallons per day, shall be performed on the site of each proposed absorption system to determine the minimum required absorption area. More tests may be required where the soil structure varies, where limiting geologic conditions are encountered, or where proposed property improvements will require large wastewater treatment systems. Percolation tests shall be performed ~~per~~in accordance with Section ~~408.~~ 509 of these regulations. An absorption system shall not be permitted in areas where the soil percolation rate is slower than sixty (60) minutes per inch or faster than one (1) minute per inch.

B. Septic Tanks

1. General Requirements~~:~~. Septic tanks shall be constructed of sound, durable, and watertight materials that are not subject to excessive corrosion, frost damage, or decay. They shall be designed and constructed to be watertight, to withstand all expected physical forces, to provide room for the settling of solids and the accumulation of sludge and scum, and to be accessible for inspection and cleaning.

2. Overall Construction and Design Features~~:~~.

a. A septic tank may be constructed of the following materials:

i. precast reinforced concrete;

ii. fiberglass;

iii. polyethylene;

iv. poured-in-place concrete; or

v. any other material approved by the Director on a case-by-case basis.

b. A septic tank may have single or multiple compartments and may be oval, circular, rectangular, or square, provided that the distance between the inlet and outlet of the tank is at least equal to the liquid depth of the tank. In general, the tank length should be at least two~~-~~ (2)-to-three (~~2~~ 3) times the tank width.

c. A septic tank may have an effluent filter installed at the tank outlet. The filter shall prevent the passage of solid particles larger than a nominal ⅛-inch diameter sphere. The filter should be easily removed for routine servicing through watertight access from the surface, or be bypassed with a piping arrangement.

3. Plans for Septic Tanks~~: Plans~~ used at Large Capacity On-site Wastewater Treatment Systems. Large Capacity On-site Wastewater Treatment systems must submit plans for all septic tanks ~~shall~~to be ~~submitted~~used to the Director for review and approval, and shall show all materials, dimensions, capacities, reinforcing, and other pertinent data as may be required pursuant to ~~Sections 205~~Section 207(A)(2)(d) (construction specifications) and ~~205(A)(~~(3)(e) (material specifications~~).~~) of these

regulations. Septic tank construction and installation shall conform to these approved construction and material specifications, as well as to the approved construction plans of ~~Sections 204~~Section 206(E) and (F~~),~~) of these regulations, and shall be accomplished under the supervision of a professional engineer licensed in Arizona, New Mexico, or Utah.

4. Tank Capacity for Single-Family Dwellings~~:~~. The minimum liquid capacity of a septic tank for a single-family dwelling shall be one thousand (1,000) gallons (liquid capacity up to the outlet invert). For homes having more than five (5) bedrooms or housing more than ten (10) people, one hundred seventy-five (175) gallons additional liquid capacity is required for each additional bedroom or for every additional two (2) people. No consideration shall be given to the number of common household appliances in a single-family dwelling, such as washers and dishwashers, since these appliances are already taken into account in the requirements listed above.

5. Tank Capacity for Commercial, Institutional, and Recreational Facilities, and Multiple-Family Dwellings~~:~~. The minimum liquid capacity of a septic tank serving a commercial, institutional, or recreational facility, or multiple-family dwellings, shall be determined as follows:

   a. For design flows up to five hundred (500) gallons per day, as estimated from Table 1, the liquid capacity of the tank shall be at least one thousand (1,000) gallons.

   b. For design flows between five hundred (500) and fifteen hundred (1,500) gallons per day, as estimated from Table 1, the liquid capacity of the tank shall be at least one-and-one-half (1.5) times the daily estimated sewage flow, but in no case less than (1,000) gallons.

   c. For wastewater flows between fifteen hundred (1,500) and five thousand (5,000) gallons per day, as estimated from Table 1, the liquid capacity of the tank shall equal at least one thousand one hundred twenty-five (1,125) gallons plus seventy-five percent (75%) of the daily wastewater flow.

6. Precast Reinforced Concrete Septic Tanks~~:~~. The walls and base of a precast tank shall be securely bonded and designed to meet all applicable American Concrete Institute (ACI) standards. The concrete shall be Class A, with a twenty-eight~~-day~~ (28~~-~~)-day~~)~~ strength of at least four thousand (4,000) pounds per square inch.

7. Poured-In-Place Concrete Septic Tanks~~:~~. The top of a poured-in-place septic tank shall be at least four (4) inches thick for a tank with a liquid capacity of up to one thousand two hundred fifty (1,250) gallons, and at least six (6) inches for a tank with a liquid capacity of greater than one thousand two hundred fifty (1,250) gallons. The walls and floor of a poured-in-place septic tank shall be at least six (6) inches thick. A six~~-inch~~ (6~~-~~)-inch~~)~~ water stop shall be used at the wall-floor juncture to ensure ~~watertightness.~~ water-tightness. All concrete used in poured-in-place tanks shall be Class A, with a twenty-eight~~-day~~ (28~~-~~)-day~~)~~ strength of at least four thousand (4,000) pounds per square inch. The tanks shall be adequately reinforced.

8. Fiberglass Septic Tanks~~:~~. A fiberglass septic tank shall comply with the criteria for acceptance established in the "Interim Guide Criteria For Glass- Fiber-Reinforced Polyester Septic Tanks," of the International Association of Plumbing and Mechanical Officials, 5032 Alhambra Avenue, Los Angeles, California 90032. The identifying seal of the association must be embossed in the fiberglass as evidence of compliance. Inlet and outlet tees shall be attached to the tank by a rubber or synthetic rubber ring seal and compression plate. The septic tank shall be installed in accordance with the

manufacturer's recommendations.

9. Polyethylene Septic Tanks~~:~~. A polyethylene septic tank shall comply with the criteria for acceptance established in "Prefabricated Septic Tanks and Sewage Holding Tanks, Can3-B66-M79" by the Canadian Standards Association International, 178 Rexdale Boulevard, Rexdale, Ontario, Canada M9W 1R3. The certifying marks of the association must be embossed in the polyethylene as evidence of compliance. The septic tank shall be installed in accordance with the manufacturer's recommendations.

10. Identifying Marks~~:~~. All prefabricated or precast septic tanks that are commercially manufactured shall be plainly, legibly, and permanently marked or stamped on the exterior, at the outlet end and within six (6) inches of the top of the wall, with the name and address or nationally registered trademark of the manufacturer and the liquid capacity of the tank in gallons. Both the inlet and outlet of all such tanks shall be plainly marked as IN and OUT, respectively.

11. Liquid Depth of Tanks~~:~~. The liquid depth of any septic tank shall be at least thirty (30) inches.

12. Tank Compartments~~:~~. A septic tank may be divided into compartments, provided each compartment meets the applicable requirements of this Section ~~407~~508(B), including the following criteria:

    a. The volume of the first compartment must equal or exceed two-thirds (2/3) of the total required volume for the septic tank.

    b. No compartment shall have an inside horizontal distance of fewer than twenty-four (24) inches.

    c. Inlets and outlets shall be designed as specified in Section ~~407~~508(B)(14~~),~~) of these regulations, but where a partition wall is used to construct a multi- compartment tank, an opening in the partition may serve to ensure flow between compartments, provided: the minimum dimension of the opening is four (4) inches, its cross-sectional area is not less than that of a six-inch (6-inch) diameter pipe (28.3 square inches), and its midpoint falls below the liquid surface a distance approximately equal to forty percent (40%) of the liquid depth of the tank.

    d. There shall be no more than three (3) compartments in a tank.

13. Tanks in Series~~:~~. Additional septic tank capacity over one thousand (1,000) gallons may be obtained by joining un-compartmented tanks in series to obtain the required capacity, provided the following requirements are met:

    a. No tank in the series shall be smaller than seven hundred fifty (750) gallons.

    b. The capacity of the first tank must equal or exceed two-thirds (2/3) of the total required volume for the septic tank.

    c. The outlet of each successive tank shall be at least two (2) inches lower than the outlet of the preceding tank, and shall be unrestricted except for the inlet to the first tank and the outlet for the last tank.

d. There shall be no more than three (3) tanks in series.

14. Inlets and Outlets~~:~~. The inlets and outlets of tanks or their compartments shall meet the material and minimum diameter requirements for building sewers. They shall be teed or baffled with the objective of diverting influent toward the tank bottom and minimizing as much as possible the discharge of sludge or scum in the effluent. They also shall comply with the following criteria:

a. Inlets and outlets shall be located on opposite ends of the tank. The invert of the flow line for the inlet shall be located at least two (2) inches (and preferably three (3) inches) above the invert of the outlet to allow for a momentary rise in the liquid level during discharge to the tank.

b. An inlet baffle or sanitary tee of wide sweep design shall divert the incoming sewage downward. This baffle or tee is to penetrate at least six (6) inches below the liquid level, but the penetration is not to be greater than that allowed for the outlet device (baffle or tee).

c. For tanks with vertical sides, outlet baffles or sanitary tees shall extend below the liquid surface a distance equal to approximately forty percent (40%) of the liquid depth. For horizontally cylindrical tanks and tanks of other shapes, that distance shall be reduced to approximately thirty-five percent (35%) of the liquid depth.

d. All baffles shall be constructed from sidewall to sidewall, or shall be designed as a conduit.

e. All inlet and outlet devices shall be permanently fastened in a vertical, rigid position. Inlet and outlet pipe connections to the septic tank shall be sealed with a bonding compound that will adhere to the tank and pipes to form watertight connections, or watertight sealing rings.

f. Inlet and outlet devices shall not include any design features preventing the free venting of gases generated in the tank or absorption system back through the roof vent in the building plumbing system. The top of the baffles or sanitary tees must extend at least six (6) inches above the liquid level to provide scum storage, but no closer than one (1) inch to the inside top of the tank.

g. Multiple outlets from septic tanks shall be prohibited.

h. A gas deflector may be added at the outlet of the tank to prevent suspended solids from entering the outlet pipe of the tank.

15. Scum Storage~~:~~. Scum storage volume shall be fifteen percent (15%) or more of the required liquid capacity of the tank and shall be provided in the space between the liquid surface and the top of the inlet and outlet devices.

16. Accessibility of Tank~~:~~. A septic tank shall be installed where it may be easily serviced and cleaned, and shall have no structure or other obstruction placed over it that would interfere with such activities. A septic tank should be installed between the dwelling and the street, whenever possible, to facilitate connection to a sanitary sewer at such time one is installed.

17. Access to the Tank Interior~~:~~.

a. ~~a.~~Access to the interior of a septic tank, or to each compartment thereof, shall be provided through properly placed manhole openings not less than eighteen (18) inches (and preferably twenty-two (22) inches) in minimum horizontal dimension, or by means of an easily removable lid.

b. ~~b.~~——Access to inlet and outlet devices shall be provided through properly spaced openings not smaller than twelve (12) inches in minimum horizontal dimension, or by means of an easily removable lid.

c. ~~c.~~The top of the tank shall be at least six (6) inches below finished grade.

d. ~~d.~~——All manholes shall be extended to within at least four (4) inches of the finished grade. The manhole extensions shall be constructed of durable and structurally sound materials designed to withstand whatever physical loads and corrosive forces may reasonably be expected to be imposed upon them.

e. ~~e.~~Manhole covers shall have adequate handles and shall be designed and constructed in such a manner that they cannot fall through the openings, and when closed will be childproof; prevent entrance of surface water, dirt, or other foreign material; and seal odorous gases in the septic tank.

f. ~~f.~~No septic tank shall be located under paving unless extensions to the access openings are extended up through the paving and the manholes are equipped with a locking-type cover.

18. Tank Cover~~:~~. A septic tank cover shall be sufficiently strong to support whatever load may reasonably be expected to be imposed upon it, and sufficiently tight to prevent the entrance of surface water, dirt, or other foreign matter, and to seal the odorous gases of digestion in the septic tank.

19. Tank Excavation and Backfill~~:~~. The hole receiving a septic tank shall be large enough to permit the proper placement of the tank and backfill. Tanks shall be installed on a level, solid base that will not settle. Where rock or other undesirable protruding obstructions are encountered, the bottom of the hole should be excavated an additional six (6) inches and backfilled to the proper grade with sand, crushed stone, or gravel. Backfill around and over the septic tank shall be placed in such a manner as to prevent undue strain or damage to the tank or connected pipes.

20. Maintenance Requirements~~:~~. A septic tank shall be adequately maintained to ensure that it functions properly per Section ~~407(F).~~ 305(B)(1)-(13) of these regulations.

C. Discharge to Absorption Systems

1. General Requirements~~:~~. Septic tank effluent shall be conducted to the absorption system through watertight pipe and fittings which meet the material, diameter, slope, and separation requirements of Section 404~~.~~ of these regulations. Tees, wyes, ells, or other distributing devices may be used as needed.

2. Tees and Wyes~~:~~. Tees and wyes shall be installed level to permit equal flow to the branches of the fitting.

3. Drop Boxes~~:~~. Drop boxes may be used to distribute effluent within the absorption system on either

level or sloping topography, and are thus usually installed in the middle or at the head end of each trench. They shall be watertight, constructed of concrete or other durable material, and designed to accommodate an inlet pipe, an outlet pipe leading to the next drop box (excepting the last drop box), and one (l) or two (2) distribution pipes leading to the absorption system. Drop boxes shall meet the following requirements:

a. The inlet pipe to the drop box shall be at least one (1) inch higher than the outlet pipe leading to the next drop box.

b. The invert of the distribution pipes(s) shall be four ~~-~~to ~~-~~six (4-6) inches below the outlet invert. If there is more than one distribution pipe, their inverts shall be at exactly the same elevation. Drop boxes shall be installed level, and the flow from multiple distribution lines should be checked by filling the drop box with water up to the outlets.

c. The inlet and outlet of the drop box shall be sealed watertight to the sidewalls of the drop box.

d. The drop box shall be accessible. The lid shall be of compatible construction and material to that of the drop box and adequate to prevent the entrance of water, dirt, or other foreign material, but shall be removable for observation and maintenance of the system. The top of the drop box shall be at least six (6) inches below finished grade.

e. The drop box must be installed on a level, solid foundation to ensure against tilting or settling. To minimize frost action and reduce the possibility of movement once installed, drop boxes should be set on a bed of sand or pea gravel at least twelve (12) inches thick.

f. Unused "knock-out" holes in concrete drop boxes shall be completely filled with concrete or mortar.

4. Distribution Boxes~~:~~. Distribution boxes may be used on level or nearly level ground, and shall be watertight and constructed of concrete or other durable material. They shall be designed to accommodate an inlet pipe and the necessary distribution line(s), and shall otherwise meet the same requirements as for drop boxes, except that the outlet inverts of the distribution box shall be ~~not less~~no fewer than two (2) inches below the inlet invert.

5. Identifying Marks~~:~~. Commercially manufactured drop boxes and distribution boxes shall be plainly and legibly marked, on an interior wall above the level of the top of the inlet pipe, with the name of the manufacturer.

D. Absorption Systems

1. General Requirements~~:~~.

a. The soil absorption area shall be determined by dividing the design flow by the applicable soil absorption rate (SAR). If the soil characterization and percolation test methods yield different SAR values, the lowest SAR value shall be used unless a higher SAR value is presented and justified by the responsible engineer, and accepted by the Director. In addition, the soil absorption area shall also be checked for organic loading by reference to Table 4-3 of EPA/625/R-00/008 Onsite Wastewater Treatment Systems Manual, February 2002. The

SAR shall be determined as follows:

i. If the percolation rate is available, the SAR shall be determined from Table 2.

ii. If soil characteristics obtained from geotechnical investigation are available, the SAR can be determined by answering the questions in Table 3. The questions are read in sequence starting with "A." The first "yes" answer determines the SAR.

Table 2. Determination of the Soil Absorption Rate (Sar) Based on the Percolation Rate

Percolation Rate from Percolation Test (minutes/inch)	**SAR for Trench (gal./day/sq.ft.)**	**SAR for Bed (gal./day/sq.ft.)**
1.00 to less than 3.00	1.20	0.93
3.00	1.10	0.73
4.00	1.00	0.67
5.00	0.90	0.60
7.00	0.75	0.50
10.00	0.63	0.42
15.00	0.50	0.33
20.00	0.44	0.29
25.00	0.40	0.27
30.00	0.36	0.24
35.00	0.33	0.22
40.00	0.31	0.21
45.00	0.29	0.20
50.00	0.28	0.19
55.00	0.27	0.18
55.00+ to 60.00	0.25	0.17

b. Distribution pipe for gravity-flow absorption systems shall be in straight lengths and four (4) inches in diameter. The pipe shall be perforated, that is, penetrated by at least two (2) rows of round holes, each one quarter (¼) to one half (½) inch in diameter, and located at approximately six- (6)-inch intervals. When installed on a level or nearly level grade, the perforations should be located at about the five o'clock and seven o'clock positions on the pipe to permit nearly equal drainage along its length, and the open ends of the pipes shall be capped.

c. Distribution pipe and pipe fittings shall be constructed of materials capable of withstanding physical loads and corrosion by sewage and sewage-generated gases, and shall meet applicable ASTM and other national standards for compressive strength and corrosive action.

Table 3. Determination of Sar Based on Soil Characteristics

Sequence of Soil Characteristics Questions	SAR for Trench, Chamber (gal./day/sq.ft.)	SAR for Bed (gal./day/sq.ft.)
A. Is the horizon gravelly coarse sand or coarser?	site-specific SAR required	site-specific SAR required
B. Is the structure of the horizon moderate or strongly platy?	site-specific SAR required	site-specific SAR required
C. Is the texture of the horizon sandy clay loam, clay loam, silty clay loam, or finer and the soil structure weak platy?	site-specific SAR required	site-specific SAR required
D. Is the moist consistency stronger than firm or any cemented class?	site-specific SAR required	site-specific SAR required
E. Is the texture sandy clay, clay, or silty clay of high clay content and the structure massive or weak?	site-specific SAR required	site-specific SAR required
F. Is the texture sandy clay loam, clay loam, silty clay loam, or silty loam and the structure massive?	site-specific SAR required	site-specific SAR required
G. Is the texture of the horizon loam or sandy loam and the structure massive?	0.20	0.13
H. Is the texture sandy clay, clay, or silty clay of low clay content and the structure moderate or strong?	0.20	0.13
I. Is the texture sandy clay loam, clay loam, or silty clay loam and the structure weak?	0.20	0.13
J. Is the texture sandy clay loam, clay loam, or silty clay loam and the structure moderate or strong?	0.40	0.27
K. Is the texture sandy loam, loam, or silty loam and the structure weak?	0.40	0.27
L. Is the texture sandy loam, loam, or silty loam and structure moderate or strong?	0.60	0.40
M. Is the texture fine sand, very fine sand, loamy fine sand, or loamy very fine sand?	0.40	0.27
N. Is the texture loamy sand or sand?	0.80	0.53
O. Is the texture coarse sand?	1.20	site-specific SAR required

d. Absorption system laterals designed to receive equal flows of wastewater shall have approximately the same absorption area. Many different designs may be used in laying out absorption systems, the choice of design depending on the size and shape of the available

area, the capacity required, and the topography of the disposal site.

e. In gravity-flow absorption systems with multiple distribution lines, the sewer pipe from the septic tank shall not be in direct line with any one of the distribution lines, except where drop boxes or distribution boxes are used.

f. Any section of distribution line laid with non-perforated pipe shall not be considered in determining the required absorption area.

g. Absorption systems may be machine-excavated provided that the soil in the bottom and sides of the excavation is not compacted. Strict attention shall be given to protect the natural absorption properties of the soil. For instance, absorption systems shall not be excavated when the soil is wet enough to smear or compact easily. Also, open absorption system excavations shall be protected from surface runoff to prevent the entrance of silt and debris. If it is necessary to walk in the excavation, a board laid temporarily on the bottom should prevent damage from excessive compaction, although some smearing damage is likely to occur. All smeared or compacted surfaces should be raked to a depth of one (1) inch, and loose material removed, before the filter material is placed in the absorption system excavation.

h. The top of the stone or "gravel" filter material shall be covered with an effective pervious material such as a synthetic filter fabric, unbacked fiberglass building insulation, a two- (2)- inch layer of compacted straw, or similar material, before being covered with earth backfill to prevent the infiltration of backfill into the filter material.

i. Absorption systems shall be backfilled with soil free from stones ten (10) inches or more in diameter. The first four-to-six (4-6) inches of soil backfill should be hand-filled. Distribution pipes shall not be crushed or disaligned during backfilling. The backfilled soil should be mounded slightly above the surface of the ground to allow for settlement and to prevent depressions leading to the surficial ponding of water.

j. Heavy equipment shall not be driven in or over absorption systems during construction or backfilling.

k. A diversion valve may be installed in the sewer line after the septic tank to allow the use of rotating absorption systems. Such duplicate systems may be allowed in lieu of replacement areas. The valve shall be accessible from the finished grade.

l. Installation in Sloping Ground: The construction of absorption systems on slopes in excess of fifteen percent (15%) but not greater than twenty-five percent (25%) may be allowed if subsoil profiles indicate the absence of restrictive layers of soil, and that there ~~is~~are at least ten (10) feet of undisturbed earth measured horizontally from the bottom of the distribution line to the ground surface. Where the addition of fluids is foreseen to create an unstable slope, absorption systems will be prohibited.

m. Replacement Area for an Absorption System: Adequate and suitable land shall be reserved and kept free of permanent structures, traffic, or adverse soil modification for the complete replacement of each absorption system.

2. Standard Absorption Trenches~~:~~. Standard trenches consist of a series of trenches designed to distribute septic tank effluent into the perforated pipe and gravel fill from which the effluent percolates through the trench walls and bottoms into the surrounding subsurface soil. The following requirements must be met:

   a. The effective absorption area of standard trenches shall be considered as the total bottom area of the excavated trench system in square feet.

   b. The minimum required effective absorption area for standard trenches shall be determined per Section ~~407~~508(D)(1)(a~~).~~) of these regulations.

   c. The design and construction of standard trenches shall be as specified in Table 4.

   d. The stone or "gravel" fill used in absorption trenches shall consist of crushed stone, gravel, or similar material, ranging from one half (½) to two-and-one-half (2½) inches in diameter. It shall be free from fines, dust, sand, or organic material; durable; and resistant to slaking and dissolution.

Table 4. Standard Absorption Trench Design Criteria

Standard Trench	**Minimum**	**Maximum**
number of trenches	1 (2 recommended)	-----
length of trench(es)[1]	-----	100 feet
bottom width of trench	12 inches	36 inches
trench absorption area (sq. ft. of absorption area per linear foot of trench)	-----	11 sq. ft.
depth of cover over aggregate material surrounding disposal pipe	9 inches	24 inches[2]
thickness of aggregate material over disposal pipe	2 inches	2 inches
thickness of aggregate material under disposal pipe	12 inches	-----
slope of disposal pipe	level	~~level~~Level
disposal pipe diameter	3 inches	4 inches
spacing of trenches (between nearest side walls)	2 ~~x~~x effective depth[3] or 5 feet, whichever greater	-----

~~Notes:~~

~~1. If unequal trench lengths are used, proportional distribution of wastewater is required.~~

~~2. For more than twenty-four (24) inches, SDR-35 or equivalent strength pipe is required.~~

~~3. The effective depth is the distance between the bottom of the disposal pipe and the bottom of the trench bed.~~

Notes:

1. If unequal trench lengths are used, proportional distribution of wastewater is required.
2. For more than twenty-four (24) inches, SDR-35 or equivalent strength pipe is required.
3. The effective depth is the distance between the bottom of the disposal pipe and the bottom of the trench bed.

3. Absorption Beds~~:~~. Absorption beds consist of large excavated areas, usually rectangular, provided with "gravel" filter material in which two (2) or more distribution lines are laid. They may be used in lieu of other approved absorption systems where conditions justify, and shall conform to the requirements applying to standard absorption trenches, except as follows:

   a. The effective absorption area of absorption beds shall be considered as the total bottom area of the excavation.

   b. The minimum required effective absorption area for absorption beds shall be determined per § ~~407~~508(D)(1)(a~~).~~) of these regulations.

   c. The design and construction of absorption beds shall be as specified in Table 5.

   d. Absorption beds should be installed where the slope of the ground surface is relatively level, sloping no more than about six (6) inches from the highest to the lowest point in the installation area. The bottom of the entire absorption bed shall be essentially level, at the same elevation, and the distribution pipes shall be interconnected to produce a continuous system.

Table 5. Absorption Bed Design Criteria

Gravity Beds	**Minimum**	**Maximum**
number of disposal pipes	2	-----
length of bed	-----	100 feet
distance between disposal pipes	4 feet	6 feet
spacing of beds measured between nearest sidewalls	2 ~~×~~x effective depth[1] or 5 ~~ft~~feet, whichever greater	-----
width of bed	10 feet	12 feet
distance from disposal pipe to sidewall	3 feet	3 feet
depth of cover over disposal pipe	9 inches	14 inches
thickness of aggregate material under disposal pipe	12 inches	-----
thickness of aggregate material over disposal pipe	2 inches	2 inches
slope of disposal pipe	level	level

disposal pipe diameter	3 inches	4 inches

~~Note:~~

~~1. The effective depth is the distance between the bottom of the disposal pipe and the bottom of the trench bed.~~

Note:

1. The effective depth is the distance between the bottom of the disposal pipe and the bottom of the trench bed.

4. Gravelless Trenches~~:—~~. Gravelless trenches consist of the installation of proprietary pipe and geocomposite or open bottom chamber instead of the distribution pipe and aggregate fill used in standard trenches. Gravelless trenches may be used if suitable gravel is unavailable or unduly expensive. The following requirements shall be met:

   a. The top of the gravelless disposal pipe or similar disposal mechanism is at least six (6) inches below the surface of the native soil, and twelve to thirty-six (12-36) inches below finished grade if an approved fill is placed on top of the installation.

   b. Backfill shall be placed in a manner to prevent settlement and ponding of rainfall over the trenches.

   c. The disposal pipe shall be constructed of material that will not decay, deteriorate, or leach chemicals or byproducts when exposed to sewage or the subsurface soil environment.

   d. Installation of disposal pipe or chamber shall follow the manufacturer's instructions, which shall be submitted for the Director's review and approval.

5. Individual Lagoons~~:~~. Individual lagoons may be built in lieu of trenches and absorption beds if the SAR is very low, thus requiring an extremely large drainfield. These lagoons may be lined or unlined depending on site conditions. The dikes must be stable and prevent surface runoff. The lagoons must be fenced for safety.

6. Seepage Pits/Cesspools~~:—~~. Seepage pits and cesspools are prohibited on the Navajo Nation. U.S. Environmental Protection Agency publications (for example, EPA 909-F-01-001, "Seepage Pits May Endanger Ground Water Quality," April 2001) provide information about the hazards posed by these disposal systems.

7. Other methods of effluent disposal from septic tanks may be permitted by the Director on a case-by-case basis.

E. Setback Distance~~:—~~. The following minimum setbacks must be provided, and any necessary easements obtained, when locating septic tanks, absorption systems, or individual lagoons~~:~~.

Table 6. Minimum Setbacks

Setback Distance from . . .	. . . to Septic Tank	. . . to Drainfield	. . . to Individual Lagoon
public water well[1]	100 feet	100 feet	100 feet
property lines	10 feet	10 feet	25 feet
House	5 feet	10 feet	300 feet
water line[2]	10 feet	25 feet	100 feet
perennial/intermittent stream	100 feet	100 feet	100 feet
lake, reservoir, canal	100 feet	100 feet	100 feet
wash[3]	50 feet	50 feet	50 feet

Notes:
1. Per NNPDWR § 1506(D)(1)(a).
2. Per NNPDWR § 1508(D).
3. May be reduced to twenty-five (25) feet if natural or constructed erosion protection is available.

~~F. Recommended Inspection and Maintenance:~~

~~1. Septic tanks should be cleaned before too much sludge or scum is allowed to accumulate and seriously reduce the tank volume settling depth. If either the settled solids or floating scum layer accumulate too close to the bottom of the outlet baffle or the sanitary tee pipe, solid particles will overflow into the absorption system and eventually clog the soil, thus ruining its absorption capacity.~~

~~2. A septic tank that receives normal loading should be inspected at yearly intervals to determine if it needs emptying. Although there are wide differences in the rate that sludge and scum accumulate, a septic tank for a private residence will generally require cleaning every three to five years. Actual measurement of scum and sludge accumulation is the only sure way to determine when a tank needs to be cleaned. Experience with a particular system may indicate the desirability of longer or shorter intervals between inspections. Scum and sludge (solids) accumulations can be measured as follows:~~

~~i. Scum can be measured with a long stick to which a weighted flap has been hinged, or any device that can be used to determine the bottom of the scum mat. The stick is forced through the scum, the hinged flap falls into a horizontal position, and the stick is lifted until resistance from the bottom of the mat is felt. With the same tool, the distance to the bottom of the outlet device can be found.~~

~~a. Sludge can be measured with a long stick wrapped with rough white toweling, which is lowered into the bottom of the tank. The stick should be narrow enough in diameter so it can be lowered through the outlet device to avoid scum particles. After several minutes, if the stick is carefully removed, the height to which the solids have built up can be distinguished by black particles clinging to the toweling.~~

~~3. The tank should be pumped out if either the bottom of the floating scum mat is within three (3) inches of the bottom of the outlet device or the sludge level has built up to approximately twelve (12) inches from the bottom of the outlet device. Little long-term benefit is derived by pumping out only the~~

liquid waste in septic tanks. All three (3) wastewater components (scum, sludge, and liquid waste) should be removed. Tanks should not be washed or disinfected after pumping. A small amount of sludge should be left in the tank for seeding purposes.

4. If multiple tanks or tanks with multiple compartments are in use, care should be taken to ensure that each tank or compartment is inspected and cleaned.

5. The digestion of sewage solids gives off explosive, asphyxiating gases. Therefore, extreme caution should be observed if entering a tank for cleaning, inspection, or maintenance. Forced ventilation or oxygen masks and a safety harness should be used.

6. Immediate replacement of broken-off inlet or outlet fittings in the septic tank is essential for the system's effective operation. On occasion, paper and solids become compacted in the vertical leg of an inlet sanitary tee. Corrective measures include replacement with a nonplugging sanitary tee of wide sweep design or a baffle.

7. Following septic tank cleaning, the interior surfaces of the tank should be inspected with a strong light for leaks or cracks. Distribution boxes, if provided, should be inspected and cleaned at the same time that the septic tank is cleaned.

8. The owner of an on-site wastewater treatment system should keep a written record of all cleaning and maintenance to the septic tank and absorption system.

2.1. The functional operation of septic tanks is not improved by the addition of yeasts, disinfectants or other chemicals, and therefore use of these materials is not recommended.

3.1. Waste brine from water softening units, soaps, detergents, bleaches, drain cleaners, and other similar materials, as normally used in a home or small commercial establishment, will have no appreciable adverse effect on a conventional system. If the septic tank is adequately sized as required, the available dilution factor will suffice to overcome any harmful effects that might otherwise occur.

9. The economic use of water helps prevent the overloading of a conventional system, which could shorten its life and necessitate expensive repairs. Plumbing fixtures should be checked regularly to find and repair any leaks which can add substantial amounts of water to the system. Industrial wastes, and other liquids that may adversely affect the operation of the on-site wastewater disposal system, should not be discharged into one. Paper towels, facial tissue, newspaper, wrapping paper, disposable diapers, sanitary napkins, coffee grounds, rags, sticks, and similar materials also should be excluded from the septic tank because they do not readily decompose, and can clog both the plumbing and the absorption system.

10. Crushed, broken, or plugged distribution pipes should be replaced immediately.

K.A. Closure: When a dwelling served by an on-site wastewater treatment system is connected to a public sewer, the on-site wastewater treatment system shall be closed. Additionally, the Director may order the closure of a discontinued or abandoned on-site wastewater treatment system.. Closure must meet the following requirements:

1. Sewage from the onsite wastewater treatment system shall be removed and disposed of in a lawful manner.

~~2.~~1. ~~Electrical and mechanical components shall be disconnected and removed.~~

~~3.~~1. ~~The top of any tank or containment structure shall be removed or collapsed, and a hole shall be punched in the bottom of the tank or containment structure if the bottom lies below the seasonal high groundwater table.~~

~~4.~~1. ~~The tank or containment structure, or any cavity resulting from its removal, shall be filled with earth, sand, gravel, concrete, or other approved material.~~

~~5.~~1. ~~The ground surface shall be re-graded to drain away from the closed area.~~

~~6.~~1. ~~Both ends of the abandoned sewer pipe between the building and the septic tank shall be cut and plugged.~~

~~1. Written notification, providing the details of closure, shall be submitted to the Director within (30) thirty days of the closure, as provided by Section 201(F).~~

~~§ 408~~

§ 509. Percolation Tests

Percolation testing and the submittal of test results shall comply with the procedures described in this section. An alternative but equivalent test method may be approved by the Director on a case-by-case basis.

A. Percolation tests shall be performed at points and elevations selected as typical of the area in which the absorption system will be located. Consideration should be given to the finished grades of building sites so that the test results will represent the percolation rate of the soil in which the absorption systems will be located. After the suitability of an area has been evaluated, and the area has been approved for construction, no grade changes shall be made unless the Director is notified in advance and the area's suitability is re-evaluated prior to construction.

B. Percolation test reports shall include:

1. a signed statement certifying that the tests were conducted in accordance with Section ~~§408~~509 of these regulations or the approved alternative method;

2. the name of the individual conducting the tests;

3. the date of the test(s);

4. the location of the property;

5. the depth and rate of each test in minutes per inch;

6. logs of the soil exploration pits, including descriptions of soil explorations to a depth of ten (10) feet. In the event that an absorption system will be deeper than six (6) feet, soil exploration must extend to a depth of at least four (4) feet below the bottom of the proposed absorption system;

7. a statement of the present and anticipated maximum groundwater table; and

8. all other factors affecting the percolation test results.

C. Percolation tests shall be conducted by or under the supervision of a qualified person such as a licensed environmental health scientist, ~~or~~ a civil, environmental or geotechnical engineer registered in Arizona, New Mexico, or Utah, or, in the case of a test for siting an on-site wastewater treatment system, a septic servicing professional in accordance with the following criteria:

1. Conditions Prohibited for Test Holes~~:~~. Percolation tests shall not be conducted in test holes that extend into groundwater, bedrock, or frozen ground.

2. Soil Exploration Pit Prerequisite to Percolation Tests~~:~~. Because the appropriate percolation test depth depends on the soil conditions at a specific site, a percolation test should be conducted only after a soil exploration pit has been dug and examined for suitable, porous strata and groundwater table information. Percolation test results should be related to the soil conditions found.

3. Number and Location of Percolation Tests~~:~~. One or more tests shall be made in separate test holes on the site of the proposed absorption system to ensure that the results are representative of the soil conditions present.

4. Test Holes to Commence in Specially ~~-~~Prepared Excavations~~:~~. All percolation test holes should commence in specially ~~-~~prepared larger excavations (preferably made with a backhoe), of sufficient size, which extend to a depth approximately six (6) inches above the strata to be tested.

5. Type, Depth, and Dimensions of Test Holes~~:~~. Test holes shall be dug or bored, preferably with hand tools such as shovels, augers, or the like, and shall have horizontal dimensions ranging from four (4) to eighteen (18) inches (preferably eight to twelve (8-12) inches). The vertical sides of the test holes shall be at least twelve (12) inches deep, terminating at an elevation six (6) inches below the bottom of the proposed absorption system or unlined lagoon.

6. Preparation of Percolation Test Hole~~:~~. The bottom and sides of the hole shall be carefully roughened or scratched with a knife blade or other sharp-pointed instrument in order to remove any smeared soil surfaces and to provide an open, natural soil interface into which water may percolate. All loose soil is to be removed from the bottom of the hole. The addition of two to three (2-3) inches of clean coarse sand gravel will protect the bottom of the hole from scouring or sealing with sediment when water is added. Caving or sloughing in some test holes can be prevented by placing a wire cylinder or perforated pipe in the test hole~~,~~ and surrounding it with clean coarse gravel.

7. Saturation and Swelling of the Soil~~:~~. It is important to distinguish between saturation and swelling. Saturation means that the void spaces between soil particles are full of water. This can happen in a relatively short period of time. Swelling, however, is a soil volume increase caused by the intrusion of water into the individual soil particles. This is a slow process, especially in clay-type soil, and is the reason for requiring a prolonged swelling period, as in ~~Paragraph~~Subsection (11) ~~below~~of this section.

8. Placing Water in Test Holes~~:~~. Water should be placed carefully into the test holes by means of a small-diameter siphon hose or other suitable method to prevent the sides of the hole from washing down.

9. Percolation Rate Measurement~~:~~. The necessary equipment may consist of a timepiece and a tape measure (with at least one-sixteenth~~-~~ (1/16)-inch ~~(1/16-inch)~~ calibration) or a float gauge. All measurements shall be made from a fixed reference point (near the top of the test hole) to the surface of the water.

10. Test Procedure for Sandy or Granular Soils~~:~~. For tests in sandy or granular soils containing little or no clay, the hole shall be carefully filled with clear water to a minimum depth of twelve (12) inches above the gravel, and the time for this amount of water to seep away shall be measured. The procedure shall be repeated. If the water from the second filling of the hole, also at least twelve (12) inches above the gravel, seeps away in ten (10) minutes or fewer, the test may proceed immediately as follows:

    a. Water shall be added to a point not more than six (6) inches above the gravel.

    b. Thereupon, from the fixed reference point, water levels shall be measured and recorded at ten (10) minute intervals for a period of one (1) hour.

    c. If six (6) inches of water seeps away in fewer than ten (10) minutes a shorter time interval between measurements shall be used, but in no case shall the water depth exceed six (6) inches.

    d. The drop that occurs during the final measurement period shall be used to calculate the percolation rate.

11. Test Procedure for Other Soils Not Meeting the Above Requirements~~:~~. The hole shall be carefully filled with clear water and a minimum depth of twelve (12) inches shall be maintained above the gravel for at least four (4) hours by refilling whenever necessary. Water remaining in the hole after four (4) hours shall not be removed. Immediately following this saturation period, the soil shall be allowed to swell not fewer than sixteen (16) hours and not more than thirty (30) hours. Immediately following this soil swelling period, percolation rate measurements shall be made using the following procedures:

    a. ~~a.~~ Any soil which has sloughed into the hole shall be removed, and the water shall be adjusted to six (6) inches over the gravel.

    b. ~~b.~~ Thereupon, from the fixed reference point, water levels shall be measured and recorded at approximately thirty~~-~~ (30)-minute ~~(30-minute)~~ intervals over four (4) hours unless two (2) successive water level drops do not vary more than one-sixteenth (1/16) of an inch and thus indicate that an approximate stabilized rate has been obtained.

    c. ~~c.~~ The hole shall be filled with clear water to a point not more than six (6) inches above the gravel whenever it becomes nearly empty.

    d. ~~d.~~ Adjustments of the water level shall not be made during the last three (3) measurement periods except to the water level at the beginning of the immediately preceding measurement period.

    e. ~~e.~~ When the first six (6) inches of water seep away in fewer than thirty (30) minutes, the time intervals between measurements shall be ten (10) minutes, and the test run for one

(1) hour.

f. ~~f.~~ The water depth shall not exceed six (6) inches at any time during the measurement period.

g. ~~g.~~ The drop that occurs during the final measurement period shall be used in calculating the percolation rate.

12. Calculation of Percolation Rate~~:~~. The percolation rate is equal to the time elapsed in minutes for the water column to drop, divided by the distance the water dropped in inches and fractions thereof.

13. Using Percolation Rate to Determine Absorption Area~~:~~. The minimum or slowest percolation rate shall be used in calculating the required absorption area.

PART ~~V~~ VI OPERATOR CERTIFICATION PROVISIONS

~~§ 501.~~ § 601. Applicability

~~These regulations~~The provisions of Part VI apply to all ~~domestic~~ wastewater treatment systems ~~within the jurisdiction of the Navajo Nation with the exception of residential~~, including systems that generate or blend reclaimed water, other than small capacity on-site wastewater treatment systems ~~serving fewer than 25 persons. Domestic wastewater~~. Wastewater treatment system owners and operators shall ensure that their systems are supervised by certified operators pursuant to these regulations. Possessing and maintaining operator certification protects public health and the Waters of the Navajo Nation by improving operation and maintenance of ~~domestic~~ wastewater treatment systems.

§ ~~502.~~ 602. General Requirements

A. ~~A.~~ The owner of a ~~domestic~~ wastewater treatment system shall ensure that the person ~~in direct~~directly responsible ~~charge of~~for operating the system is a certified operator and is certified at or above the level of the ~~domestic~~ wastewater treatment system.

1. ~~1.~~ A person in charge of a ~~domestic~~ wastewater treatment system, in the absence of the principal certified operator, shall be certified at a level no lower than one level below the level of the ~~domestic~~ wastewater treatment system.

2. ~~2.~~ No person shall make a decision about process control for the ~~domestic~~ wastewater treatment system unless that person is a certified operator.

3. ~~3.~~ If a certified operator is ~~in direct~~directly responsible ~~charge of~~for operating more than one ~~domestic~~ wastewater treatment system, the certified operator shall be certified at or above the level of the ~~domestic~~ wastewater treatment system with the highest level.

B. ~~B.~~ Owners and operators of ~~domestic~~ wastewater treatment systems shall notify the Director in writing of the name of the current certified operator within ninety (90) days of the effective date of these regulations and shall notify the Director of the name of any person replacing the certified operator within ten (10)

business days of the change in operators. The owner shall notify the Director in writing within ten (10) business days of the date a ~~domestic~~ wastewater treatment system ceases operation.

C. ~~C.~~ There ~~shall be four levels~~are up to six (6) classes of ~~domestic~~ wastewater treatment systems, with WW4~~Level 4~~ being the classification for the most complex. ~~Small domestic wastewater~~Wastewater treatment systems serving from twenty (20) to two hundred (200~~ or fewer~~) persons ~~shall be classified as~~are considered small wastewater (SWW) treatment systems~~.~~, which are the least complex. The Director ~~shall~~will, in his or her discretion, classify each system pursuant to the criteria listed in Section ~~503~~603 of these regulations, and may adjust the classification for the following reasons:

1. ~~1.~~ The ~~domestic~~ wastewater treatment system has special design features that make it more difficult to operate than usual;

2. ~~2.~~ The ~~domestic~~ wastewater treatment system has characteristics that make treatment unusually difficult; or

3. ~~3.~~ The ~~domestic~~ wastewater treatment system poses potential risk to public health.

The Director ~~shall~~will notify the owner in writing of any change in classification. The owner may respond to any change in classification within thirty (30) days of notification, and the Director may consider and respond to such comments before making a final decision on classification. For a multi-facility, each component system shall be classified according to complexity and the total population served.

D. ~~D.~~ A certified operator may operate any ~~domestic~~ wastewater treatment system of the same level for which the operator is certified or of any lower level. Operator certifications also determine which systems the operator is qualified to perform wastewater analysis on.

E. ~~E.~~ NNEPA will consider that a system has an appropriately certified operator when the operator:

1. holds a valid certification equal to or greater than that required for the classification of the treatment facility and/or collection system, as specified in these regulations;

2. ~~2.~~ demonstrates competency through knowledge, skills, and abilities to operate the system in compliance with ~~the~~these NNDWWR; and

3. ~~3.~~ is on-site, or able to be contacted as needed in order to initiate any necessary action in a timely manner.

~~§ 503 CLASSIFICATION OF DOMESTIC WASTEWATER SYSTEMS~~

~~Domestic wastewater~~§ 603. Classifications of Wastewater Treatment Systems

Wastewater treatment systems are classified based on the type of system, population served, degree of hazard to public health, and degree of treatment.

A. ~~A. Treatment~~ Classification of treatment processes at ~~domestic~~ wastewater treatment systems and corresponding operator certification requirements are ~~classified as~~ provided below. The list is not intended to be exhaustive. Any treatment process not listed on the table ~~shall~~, including, for example, a system that provides reclaimed water, will be classified on a case-by-case basis~~.~~, and a corresponding operator

certification level will be assigned. When more than one classification applies to a WWTS, the operator must be certified at the highest applicable grade level.

Table 7. Classification of Treatment Processes at WWTSs and Corresponding Operator Certification Levels

Treatment Process	Population Served				
	~~25~~20 to 200	201 to 2,000	2,001 to 10,000	10,001 to 20,000	20,000+
Raw wastewater lagoons	SWW	WW1	WW1	WW1	WW1
Aerated lagoons	SWW	WW2	WW2	WW2	WW2
Primary treatment	SWW	WW2	WW2	WW2	WW2
Primary treatment and oxidation ponds	SWW	WW2	WW2	WW2	WW2
Secondary treatment, trickling filter	SWW	WW2	WW3	WW3	WW4
Secondary treatment, activated sludge	SWW	WW2	WW3	WW3	WW4
Secondary treatment, aeration	SWWA	WW3	WW3	WW4	WW4
Physical-chemical treatment processes	SWWA	WW3	WW3	WW3	WW4
Advanced waste treatment process, ~~filtration~~ Filtration	SWWA	WW3	WW4	WW4	WW4
Phosphorous and nitrogen removal	SWWA	WW3	WW3	WW4	WW4
Sludge stabilization, conditioning and ~~disposal~~ Disposal	SWWA	WW3	WW3	WW3	WW4
Chlorination, Dechlorination, Ozonation	SWWA	WW3	WW3	WW3	WW4
On-Site Wastewater Treatment	SWW	-	-	-	-

Note: SWW - Small Wastewater; SWWA - Small Wastewater Advanced; WW1 - Wastewater Level 1; WW2 - Wastewater Level 2; WW3 - Wastewater Level 3; WW4 - Wastewater Level 4

B. ~~B.~~ Collection systems ~~at various sizes of domestic wastewater systems~~ are classified as follows:

Table 8. Classification of Collection Systems

Population Served	~~25~~ 20 to 200	201 to 2,500	2,501 to 10,000	10,001 to 20,000	20,000+
Level	SWW	CS1	CS1	CS2	CS2

Note: CS1 - Collection System Level 1; CS2 - Collection System Level 2

C. ~~C.~~ In order to perform wastewater analysis at the various sizes of the ~~domestic~~ wastewater treatment systems, the level of certification provided below shall be required.

Table 9. Required Certification Levels for Wastewater Analysis

Population Served	~~25~~ 20 to 500	501 to 5,000	5,001 to 10,000	10,001 to 20,000	20,000+
Level	WWLT1	WWLT2	WWLT2	WWLT3	WWLT3

Note: WWLT1 - Wastewater Laboratory Technician Level 1; WWLT2 - Wastewater Laboratory Technician Level 2; WWLT3 - Wastewater Laboratory Technician Level 3

~~**§ 504 LESSER INCLUDED CERTIFICATIONS**~~

~~**A.**~~ **§ 604. Lesser Included Certifications**

A. An operator holding a SWWA certification is certified to perform any activity or function or make any process control or system integrity decision which requires a SWW certification.

B. ~~B.~~ An operator holding a WW1 certification is certified to perform any activity or function or make any process control or system integrity decision which requires a SWW and CS1 certification.

C. ~~C.~~ An operator holding a WW2 certification is certified to perform any activity or function or make any process control or system integrity decision which requires a SWW, WW1, CS1~~,~~ and CS2 certification.

D. ~~D.~~ An operator holding a WW3 certification is certified to perform any activity or function or make any process control or system integrity decision which requires a SWW, SWWA, WW1, WW2, CS1~~,~~ and CS2 certification.

E. ~~E.~~ An operator holding a WW4 certification is certified to perform any activity or function or make any process control or system integrity decision which requires a SWW, SWWA, WW1, WW2, WW3, CS1~~,~~ and CS2 certification.

~~**§ 505 APPLICATION REQUIREMENTS FOR CERTIFICATION**~~
§ 605. Application Requirements for Certification

To be certified, an applicant shall:

A. ~~A.~~ submit a completed application for certification, on a form provided by the Director, together with the fees required in Section ~~515; applications~~803 of these regulations. Applications must be received by the Director no later than thirty (30) calendar days prior to the date of examination;

B. ~~B.~~ successfully meet the educational, experience and training requirements stipulated in Section ~~506~~606 of these regulations, prior to application; and

C. ~~C.~~ successfully pass the written examination for the level of certification being applied for, as specified in Section 607 of these regulations; or

D. ~~D.~~ meet the reciprocity requirements in Section ~~509~~609 of these regulations, in lieu of passing the examination in Section ~~507~~607 of these regulations.

Each application submitted will be reviewed for completeness by the Director within thirty (30) days of its receipt, or such longer time as the Director may deem necessary. The Director may also request additional information from the applicant when necessary to clarify or supplement previously submitted material. ~~Request~~A request for such information will not render an application incomplete.

~~**§ 506 MINIMUM REQUIREMENTS OF EDUCATION AND EXPERIENCE**~~

~~**A.**~~ **§ 606. Minimum Requirements for Education and Experience**

A. The minimum requirements ~~of~~for education and experience for each level of certification are:

1. ~~1.~~ For SWW, SWWA, WW1, WWLT1~~,~~ and CS1 certifications, at least:

   a. ~~a.~~High school graduation, or general equivalency diploma, and one (1) year of qualifying experience in the operation of the same level or higher wastewater system; or

   b. ~~b.~~ Two (2) years or more of post-secondary education in a qualifying discipline.

2. ~~2.~~ For WW2, WWLT2~~,~~ and CS2 certifications, at least:

   a. ~~a.~~ High school graduation, or general equivalency diploma, and two (2) years of qualifying experience, including one (1) year as a certified operator at one (1) level lower than WW2, WWLT2~~,~~ and CS2;

   b. ~~b.~~ Two (2) years of post-secondary education in a qualifying discipline and one (1) year of qualifying experience, including six (6) months as a certified operator at one (1) level lower than WW2, WWLT2~~,~~ and CS2; or

   c. ~~c.~~ A bachelor's degree in a qualifying discipline and six (6) months of qualifying experience.

3. ~~3.~~ For WW3 and WWLT3 certifications, at least:

   a. ~~a.~~ High school graduation or general equivalency diploma, and three (3) years of qualifying experience, including one (1) year as a WW2 and WWLT2 operator;

   b. ~~b.~~ Two (2) years of post-secondary education in a qualifying discipline and two (2) years of qualifying experience, including one (1) year as a WW2 and WWLT2 operator; or

   c. ~~c.~~ A bachelor's degree in a qualifying discipline and eighteen (18) months of qualifying experience, including one (1) year as a WW2 and WWLT2 operator.

4. ~~4.~~ For WW4 certification, at least:

   a. ~~a.~~ High school graduation, or general equivalency diploma and four (4) years of qualifying experience, including one (1) year as a WW3 operator;

   b. ~~b.~~ Two (2) years of post-secondary education in a qualifying discipline and three (3) years

of qualifying experience, including (1) one year as a WW3 operator; or

c. ~~c.~~ A bachelor's degree in a qualifying discipline and thirty (30) months of qualifying experience, including one (1) year as a WW3 operator.

~~**§ 507 EXAMINATION**~~

~~**A.**~~ **§ 607. Examination**

A. The Director shall provide for examinations for certification of operators. The Director may contract with third party examiners for administration of examinations, based on his or her assessment of the quality of the examination services. The Director shall ensure that a list of approved examiners is available upon request.

B. ~~B.~~ The Director shall validate all examinations before administration. Each examination shall include topics such as treatment technologies, system maintenance, regulatory protocols, safety, mathematics, and general system management.

C. ~~C.~~ The examiner shall grade the examination and make the results available to the applicant and the Director. A grade of seventy percent (70%) or above is considered passing.

D. ~~D.~~ An applicant shall not be admitted to an examination without a valid picture identification.

~~**§ 508 EXAMINATION APPEAL PROCESS**~~

~~**A.**~~ **§ 608. Examination Appeal Process**

A. All applicants with a score from sixty-five percent (65~~%~~%) to sixty-nine percent (69~~%~~%) will be allowed to appeal an exam score by sending a letter of appeal to the Director within thirty (30) days of receiving the notice of exam results.

B. ~~B.~~ The Director will schedule a date for the applicant to review the graded exam and indicate which questions are being appealed. The applicant will be given adequate time to specify the reason for the appeal. References are encouraged to be cited and supporting documentation may be submitted to substantiate claims that examination questions are flawed or ambiguous.

C. ~~C.~~ The Director will designate a proctor to oversee the appeal session. The proctor is prohibited from discussing any exam issues or to assist in the appeal of any missed questions.

D. ~~D.~~ At the end of the appeal session, the proctor will collect the exam, the answer sheet, the appeal form, and any notes or scratch paper. The proctor will also review any reference material brought to the appeal session to ensure that no notes or comments pertaining to exam questions have been added. The applicant will be allowed to leave with only the reference material that s/he~~/she~~ brought to the session.

E. ~~E.~~ The Director will review the appeal and the supporting documentation submitted by the appellant and will make a determination within thirty (30) days of the appeal. All decisions will be final, and no further appeals will be allowed.

~~§ 509 RECIPROCITY~~

~~A.~~ **§ 609. Reciprocity**

A. The Director shall issue a certificate to an applicant who holds a valid certificate from another jurisdiction, if the applicant:

1. ~~1.~~ Meets the minimum education and experience requirement as specified in Section ~~506~~606 of these regulations, and

2. ~~2.~~ Passes a written, validated examination given by the Director as specified in Section ~~507~~607 of these regulations or the examination administered by another jurisdiction that is substantially equivalent to the examination given by the Director.

~~§ 510 TEMPORARY CERTIFICATE~~

~~A. Existing operators~~**§ 610. Temporary Certificate**

A. Operators in ~~responsible~~ charge of existing systems at the time ~~this Part of the Domestic Wastewater Regulations becomes~~these regulations become effective are eligible to apply for a temporary certificate within ninety (90) days of the effective date of these regulations. Application must be submitted to the Director with all supporting documents. Temporary certificates will be granted subject to the following conditions:

1. ~~1.~~ the temporary certificate is site-specific and non-transferable to another operator;

2. ~~2.~~ the temporary certificate is valid for one (1) year to allow the operator to meet all the requirements of the certification as specified in ~~§ 505; An~~Section 605 of these regulations (an extension of up to six (6) months may be granted if the operator can show satisfactory progress towards the certification~~;~~);

3. ~~3.~~ the temporary certificate will become void if classification of the wastewater system changes to a higher level; and

~~4.~~

4. the temporary certificate will become void if the operator chooses to work for a different wastewater system.

~~§ 511 RENEWAL OF CERTIFICATES~~

~~A.~~ **§ 611. Renewal Certificates**

A. A renewal application and a fee, set by the Director, must be submitted at least thirty (30) days prior to expiration of the certificate. The Director shall approve the renewal of the certificate if the requirements in Section ~~511~~611(B) or ~~511~~(C) of these regulations are met. Renewals shall be for three (3) years.

B. ~~B.~~ Renewal requires that each certified operator obtain thirty-five (35) professional development hours (PDHs) in the three (3-)-year period preceding the date on which the renewal application is due.

Documentation of each training credit shall be on a form provided by the Director and verification of the training shall be provided in writing by the entity that provided the training or the operator's supervisor.

C. ~~C.~~ Renewal may be obtained by taking and passing the examination for the same level of certification in lieu of PDH requirements specified in ~~Section 511(B).~~ Subsection 611(B) of this section.

~~§ 512 EXPIRED CERTIFICATES~~

~~A.~~ § 612. Expired Certificates

A. A certificate shall expire on the expiration date printed on the certificate, unless renewed before the expiration date pursuant to Section ~~511.~~ 611 of these regulations.

B. ~~B.~~ Expired certificates may be reinstated without penalty upon application within thirty (30) days of the date of expiration. An expired certificate ~~which~~that has not been reinstated within the thirty (30)-day period may be reinstated if the certificate-holder meets the renewal requirements and pays fees specified in Section 511 ~~plus $~~of these regulations plus a ten dollar ($10.00) per month late fee for each month or portion thereof beyond the expiration date.

C. ~~C.~~ If an expired certificate is not renewed within ninety (90) days of its expiration date, the certificate shall not be reinstated. The certificate-holder may reapply and be reexamined as a new applicant.

~~§ 513 SUSPENSION AND REVOCATION~~

~~A.~~ § 613. Suspension and Revocation

A. The Director may suspend or revoke any or all certificate(s) held by a certified operator as stipulated under this section.

B. ~~B.~~ The Director may suspend or revoke certification under the following circumstances:

1. ~~1.~~ The certificate-holder has ~~been convicted in a court to have~~ operated a wastewater system in a manner that violates tribal, federal or state law.

2. ~~2.~~ The certificate-holder obtained a certificate through the use of fraud, deceit or misrepresentation.

3. ~~3.~~ The certificate-holder has prepared a false or fraudulent report or record regarding the operation or management of a wastewater system.

4. ~~4.~~ The certificate-holder has violated any other law that poses a risk to the health and safety of the public served by the wastewater system.

C. ~~C.~~ When the Director contemplates the suspension or revocation of a certificate, the Director shall serve upon the certificate-holder an initial order pursuant to Section 304(a) of the Uniform Rules ~~Section 304(a),~~ containing a statement:

1. ~~1.~~ that the Director has sufficient evidence which, if not rebutted or explained, will justify the Director in suspending or revoking the certificate;

2. ~~2.~~ that indicates the general nature of the evidence; and

3. ~~3.~~ that unless the certificate-holder within thirty (30) days after service of notice requests a hearing pursuant to Section 305 of the Uniform Rules ~~Section 305~~, the Director will take the contemplated action and judicial review will not be available. If the certificate-holder requests a hearing, the Director shall designate a Hearing Official and a Hearing Clerk and a hearing shall be held pursuant to Uniform Rules Subpart 3(C). Judicial review of the final order shall be available pursuant to Section 332 of the Uniform Rules ~~Section 332~~.

4. ~~4.~~ Notwithstanding ~~Uniform Rules~~ Section 304(b~~) (~~)(3~~),~~) of the Uniform Rules, an order suspending or revoking a certificate need not specify a schedule for compliance.

D. ~~D.~~ If any certificate held by an operator is suspended or revoked by the ~~Navajo Nation~~Director, a letter to request re-application and re-examination may be submitted to the Director for consideration upon the expiration of the ~~action~~suspension or revocation and in accordance with the final determination of the suspension or revocation.

1. ~~1.~~ The Director shall make a determination and respond in writing within thirty (30) days of such request to permit or deny re-application and re-certification. The Director may request additional information to evaluate the severity of the violation that led to the suspension or revocation, any good faith efforts to remedy that violation, and any other factors that the Director deems relevant in the determination.

2. ~~2.~~ Each request for re-application and re-examination will be considered on a case-by-case basis. The Director may seek the advice of the Utility Operators Certification Advisory Board to make a decision.

3. ~~3.~~ Under no circumstances shall an approval for re-application and re-examination be in conflict with a previously issued suspension or revocation.

4. ~~4.~~ All decisions by the Director are final~~.~~ and subject to judicial review pursuant to Section 332 of the Uniform Rules. If approved, the applicant shall be permitted to re-apply and retake the exam as a new applicant subject to the certification requirements of this Part. If disapproved, a letter of denial with an explanation will be issued.

~~§ 514 UTILITY OPERATORS CERTIFICATION ADVISORY BOARD~~

~~A. A~~ § 614. Utility Operators Certification Advisory Board ~~(~~

A. A Utility Operators Certification Advisory Board~~) shall~~ will be appointed by the Director to make recommendations and provide technical advice and assistance to the Director as may be needed. The Director shall promptly notify the Board of all matters brought before the Director to which the Operator Certification Provisions are applicable.

B. ~~B.~~ The Board shall consist of five (5) members appointed by the Director as follows:

1. One (1~~.~~ ~~1~~) employee of the NNEPA;

2. ~~2.~~ One (1) representative of the Navajo Tribal Utility Authority;

3. ~~3.~~ One (1) employee of Navajo Area Bureau of Indian Affairs;

4. ~~4.~~ One (1) currently employed operator of a water or wastewater system on the Navajo Nation; and

5. ~~5.~~ One (1) representative of small water or wastewater system within the Navajo Nation.

The Director shall also appoint (2) two certified operators to serve as alternates to Board members in their absence. All alternates appointed prior to the effective date of this Part will be allowed to serve out the remainder of their three- (3)-year terms.

C. ~~C.~~ Appointments to the Board shall be for a three (3-)-year term. The Director shall appoint new Board members at its first meeting of the fiscal year. The terms shall overlap so that no more than three terms shall expire in any (1) one year. A Board member may be reappointed, but no member, except the NNEPA employee, may serve more than two (2) consecutive terms.

D. ~~D.~~ At the first meeting of the Board each fiscal year, the Board shall elect from its members a chairperson and such officers as deemed necessary. The NNEPA employee shall be the executive secretary and shall keep records of all meetings for review by the Director. The Board shall meet at least four (4) times per year.

E. ~~E.~~ A quorum shall consist of at least three (3) members: the chairperson or designated representative, executive secretary or designated representative, and one other member of the Board.

F. ~~F.~~ In the event of a vacancy caused by death, resignation, or removal for cause, the Director shall appoint a successor for the unexpired term.

G. ~~G.~~ The duties of the Board shall include:

1. ~~1.~~ Advise the Director in administering and implementing this Part by providing a forum for the discussion of technical and administrative issues, and by providing training assistance or information on such assistance;

2. ~~2.~~ Review proposed new and/or revisions to rules and guidelines under this Part;

3. ~~3.~~ Make recommendations to the Director for replacement members when a Board vacancy occurs;

4. ~~4.~~ Perform any other function with regard to this Part.

H. ~~H.~~ Any Board member failing to attend three (3) consecutive regular meetings shall be automatically removed as a member of the Board. The Director may remove any member of the Board for neglect of any duty required by law, for incompetency, or for unprofessional conduct and shall remove any Board member who violates any provision of the NNEPA laws. The Director shall fill any vacancies on the Board.

I. ~~I.~~ All Board members shall be paid upon the availability of funds.

~~**§ 515 FEE SCHEDULE**~~

~~A. An applicant must pay the fees listed in the attached fee schedule. These fees may be revised by the Director to reflect operator certification and training program costs, pursuant to the rulemaking requirements of Uniform Rules Subpart 4.~~

~~B. All fees must be paid to the Navajo Nation Domestic Wastewater Program.~~

~~C.~~ **PART VII SEPTAGE REMOVAL AND TRANSPORTATION LICENSE**

§ 701. License Requirement

Any person engaged in the removal, transport, or disposal of septage or other contents of an on-site wastewater system, privy, sewage vault, or self-contained toilet on the Navajo Nation shall obtain a Septage Removal and Hauling License from the Director. Persons engaged in the removal, transport, or disposal of septage on the effective date of this Part VII must submit a license application within one (1) year of the effective date of this Part. Each license issued shall be valid for one (1) year following its issuance and shall be renewed annually. The DWWP will publish and maintain on its website a list of licenses issued, which will include at a minimum the licensee name, license expiration date, and licensee contact information.

§ 702. Application and Renewal

A. The applicant shall submit to the Director a completed license application together with the required fee and the information listed in Subsection (B) of this section at least thirty (30) calendar days prior to the date the applicant seeks to begin operating on the Navajo Nation. The Director shall approve a complete license application and issue an identification number for each pumping truck that will be collecting septage on the Navajo Nation. The Director shall not be required to follow the permit issuance provisions of Uniform Rules §§ 205-213 for license issuance or renewal.

B. Applications for licenses shall include the following:

1. a signed application form, to be obtained from the Director;

2. the appropriate fee,

3. proof of general liability insurance;

4. for a person seeking a license based on reciprocity, a copy of a valid certification from another jurisdiction; and

5. any other information requested by the Director.

C. To renew an existing license, the licensee shall submit to the Director a completed renewal form together with the appropriate renewal fee at least thirty (30) days prior to the expiration of the license. If a licensee has submitted a timely and complete renewal application under this Part, but the Director has not taken final action on it, the current license shall remain in effect until the Director makes a final determination on the renewal application.

§ 703. Reciprocity

The Director shall issue a license to an applicant who the Director determines holds a comparable valid certificate from another jurisdiction. A person seeking a license based on reciprocity shall submit to the Director a completed license application together with the accompanying fee.

§ 704. License Determinations

The Director shall issue a license if the applicant submits a completed application that meets the requirements of § 702 of these regulations and the Director determines that the applicant possesses working knowledge of conventional septic tank systems and alternative systems to be serviced and has obtained at least one of the following certifications:

1. certification by the manufacturer for the type of system to be serviced;

2. small wastewater ("SWW") operator certification in accordance with Section 603 of these regulations;

3. professional engineer licensed in Arizona, New Mexico, or Utah;

4. certification or qualification as a septic service provider, such as an on-site system design, inspection, or maintenance professional, in Arizona, New Mexico, or Utah; or

5. demonstration of a similar accreditation or certification or a combination of training and experience as approved by the Director.

§ 705. Procedures

The Director and applicant shall adhere to the following license issuance and renewal procedures:

1. Upon receipt of an application or renewal for a Septage Removal and Hauling License, the Director will review the application for compliance with the requirements of § 702 of these regulations. If there are any deficiencies, or if additional information is needed, the applicant will be notified in writing within thirty (30) calendar days of the Director's receipt of the application.

2. The Director will act on all applications within ninety (90) days of receipt and undertake a completeness review within forty-five (45) days. Therefore, within thirty (30) days after receipt of an application, the Director will request any additional information necessary to process the application and the applicant shall submit the requested information within fifteen (15) days from the request for additional information. If the applicant does not timely submit the requested information and this results in a delay that is beyond the forty-five (45)-day completeness review period, the ninety (90)-day period for a decision on an application will be extended by the number of additional days the applicant takes to submit the requested information beyond the forty-five (45)-day period. If the Director requests information after the thirty (30)-day period, the applicant shall still have fifteen (15) days to submit such information and the Director will still grant or deny the application within the ninety (90)-day period.

3. The Director will send a letter stating whether a new license or renewal application has been approved or denied.

4. Persons obtaining a license or a license renewal must comply with all conditions and terms in these regulations.

§ 706. Conditions of License

A. As a condition of obtaining a Septage Removal and Hauling License:

1. the Director shall have the right to inspect and sample any vehicles and containers that are used for transportation of domestic septage;

2. the Director shall have the right to enter any premises where records relevant to determining compliance with these regulations or the requirements of the license are kept;

3. the licensee, its agents, and employees shall consent to the jurisdiction of the Navajo Nation and shall agree to abide by all laws of the Navajo Nation. Each application and each license that is issued shall contain the following statement to which the licensee must agree and subscribe for the application to be complete and the license to be valid:

"I consent to the jurisdiction of the Navajo Nation with respect to all activities conducted pursuant to this license and the Navajo Nation Domestic Wastewater Regulations. This consent shall be effective when a license is issued and may not be withdrawn. This consent shall extend to and be binding upon all employees and agents, including contractors and subcontractors of licensee whose activities fall within the scope of the issued license.";

4. Licensee shall include the statement in Subsection (3) of this section as a term and condition of any contract or other agreement it executes for services to be performed or goods to be provided within the Navajo Nation in connection with the license, and each party to any such contract or other agreement must agree and subscribe to said statement, substituting the name of the party for "licensee" as appropriate;

5. Licenses may be modified or terminated by the Director at the request of the licensee, for good cause shown, or pursuant to Section 116 of these regulations if the licensee has violated the provisions of Part VI of these regulations.

6. A license may not be transferred from one person to another.

§ 707. Requirements for Licensees

A. Financial Assurance

All license holders must secure financial assurance in the form of $ 500,000 general liability insurance. A license will not be issued absent general liability insurance meeting the requirements of this section.

B. Vehicles and Equipment

All vehicles and equipment, including but not limited to hoses, valves, and tanks used to remove and transport septage, shall be:

1. maintained in a manner that will prevent the occurrence of leaks, spills, and other nuisance

conditions;

2. kept in a clean and sanitary condition;

3. supplied with the implements needed to cleanup any accidental spillage of septage or related waste; and

4. subject to inspection by DWWP.

C. Operating Requirements

1. The pumping, transporting, and disposal of septage shall be done in a manner that does not cause a hazard to public health and does not degrade the environment.

2. Any septage or other waste dropped or spilled must be cleaned immediately and the area disinfected.

3. Licensees shall inform septic system owners within seven (7) days of any septic system conditions observed during the servicing that violate Section 305(B)(2)-(4), (7), (12), and (13) of these regulations.

4. All septage shall be disposed of at regulated disposal facilities located off the Navajo Nation in compliance with applicable requirements, at future regulated municipal landfills on the Navajo Nation, and/or at regional wastewater treatment systems selected and modified to receive, store, or treat septage and permitted by the appropriate authorities. A regional wastewater treatment system may establish additional provisions regarding notification, quality of sludge, and other requirements as a condition to using the system.

5. Transport of septage shall conform to all applicable laws.

D. Records of Operation

Each licensee is required to maintain accurate written records of removal, transport, and disposal activities for five (5) years and shall, upon written request from DWWP, make such records available to the DWWP for inspection. Records shall be kept current and shall include at least the following information for each removal, transport, and disposal activity:

1. date and time of septage removal;

2. name and address of residence or system where septage was removed. When one (1) or more self-contained toilets are cleaned at one (1) location, one (1) recorded entry per location will be acceptable;

3. type of septage system serviced (for example, septic tank, self-contained toilet, marine sanitation device);

4. any safety concerns with the maintenance hole cover, and any tank leakage observed below or above the operating depth;

5. quantity of septage, in wet tons, dry tons, and gallons (if in liquid form); and

6. name, address, and telephone number of the system where septage is brought for disposal and date and time of disposal.

E. Reporting

The licensee shall provide to the Director a quarterly summary report of removal, transport, and disposal activities on forms approved by the Director. Information to be submitted includes information required by Section 707(D) of these regulations and any other information requested by the Director.

§ 708. Prohibitions

A. Open dumping, as defined in the Navajo Nation Solid Waste Act, 4 N.N.C. § 102(10), of septage is prohibited.

B. Discharge of septage into a public sewage collection system, without the consent and permission of the owner or operator of such system, is prohibited.

C. Removal, transport, and disposal activities shall not create a public health or environmental nuisance or hazard and in particular shall not pollute ground or surface waters.

PART VIII FEES

§ 801. Requirement to Pay Fees

A. Any owner or operator who is required to obtain an operating or construction permit or coverage under a general permit, any septage pumper required to obtain a license, and any operator required to obtain certification shall be assessed a fee in accordance with the provisions set forth in this Part, except for fees pertaining to reclaimed water permits, which are subject to the provisions of Part IX.

B. Any owner or operator who submits an application for a permit modification or variance shall include with the application a filing fee in accordance with the provisions set forth in this Part.

C. A fee assessed under this Part is not refundable if the permit, license, Request for Coverage, certification, or modification or variance to which it applies or any application for the same is denied or withdrawn.

§ 802. Operator Fees

In the event that a person applying for an ~~applicant~~operator certification is denied reciprocity or renewal of a certificate, the fees may be transferred to cover a future application, renewal, or examination ~~fees.~~ or other certification-related costs (such as training material reproduction and postage) fees. At no time will fees be returned to the applicant.

~~**D.**~~ **§ 803. Fee Schedule**

The following fees must accompany any associated submission to the Director:

Table 10. Permit And License Fees

Construction Permit - Administrative Fees for Processing Application

Administrative Fee	
New wastewater treatment system	$1,040
Substantial modification or extension of system	$ 200
Variance	$100

Construction Permit - Technical Review Fees for Reviewing Application

Municipal Wastewater Treatment System	
Treatment Capacity (MGD)	
Less than 0.010	$1,040
Equal to or greater than 0.010, but less than 0.100	$1,440
Equal to or greater than 0.100, but less than 1.000	$1,800
Equal to or greater than 1.000	Actual review cost to the program not to exceed $10,000

Wastewater Lagoon System	
Treatment Capacity (MGD)	
Less than 0.010	$720
Equal to or greater than 0.010, but less than 0.100	$1,080
Equal to or greater than 0.100, but less than 1.000	$1,440
Equal to or greater than 1.000	Actual review cost to the program not to exceed $10,000
Large Capacity Onsite Wastewater Treatment System	
A. Septic tank with standard drainfield:	
1. First single septic tank and drain field	$360
2. Additional septic tank or drainfield within the same system or community	$180 per septic tank and drainfield
B. Septic tank with non-standard drainfield:	
Septic tank with an individual lagoon or other disposal method	$540 per system
Wastewater Collection and Conveyance System	
A. Gravity Flow Sewer mains:	
1. Up to 500 feet	$45
2. Greater than 500 feet	$0.045 per foot, not to exceed $2,000
B. Force Mains and Lift Stations:	
1. Force mains	$0.090 per foot
2. Lift station	$90 per station
Minor Modification	
Minor modifications not covered above	$50

Operating Permit Fees

Municipal Wastewater Treatment System	
New application	$3,180
Renewal	$2,680
Substantial modification	$2,680
Variance	$1,000

Wastewater Lagoon System	
New application	$2,140
Renewal	$1,640
Substantial modification	$1,640
Variance	$1,000
Large Capacity Septic System	
New application	$1,440
Renewal	$940
Substantial modification	$940
Variance	$1,000

Operator Certification

Operator Certification	
New application	$65
Renewal	$50 per certification (e.g. some operators may need both treatment and collection system certifications)

Septage Pumper License

Septage Pumper License	
New application	$250
Renewal	$100

General Permit Coverage for Small Capacity Septic System

General Permit Coverage	
New application	$50
Substantial modification	$25
Transfer of coverage	$25

§ 804. Reduction of Fee

Any owner or operator (except for a major industrial or major municipal system) or any person applying for a Septage Removal and Hauling License may request the Director to reduce a fee listed above by no more than one-half upon a showing of the owner or operator that the full permit fee would cause a severe economic hardship. The request for reduction of fee shall be submitted with the permit application along with the amount of the proposed reduced fee. If the request is denied, the Director will bill the applicant for the remaining portion of the fee, which shall be due thirty (30) days after the date of receipt of the bill from the Director.

§ 805. Fee Adjustments

A. The fees in Section 803 of these regulations will automatically change each year to reflect changes in the Consumer Price Index ("CPI") by adjusting the fee by the change in the average annual CPI inflation over the preceding year, rounded to the nearest multiple of $1, as published by the Bureau of Labor Statistics, using the calculator found at http://www.bls.gov/data/inflation_calculator.htm. The Director will post the adjusted fee on the NNEPA website at the beginning of each year and on application documents. In his or her discretion, the Director may decide not to adjust the fee in a particular year.

B. In addition to the automatic fee adjustment provided in Subsection (A) of this section, the Director may revise the fee schedule as he or she deems appropriate pursuant to the provisions for rulemakings in the Uniform Rules §§ 401-410.

C. The applicant, permittee, or licensee must pay the fee in the amount posted on NNEPA's website as of the date the applicable forms and applications are submitted.

§ 806. Account

Monies derived from fees under this regulation shall be deposited into the PWS Fund, which is the special revenue account established under the NNSDWA, 22 N.N.C. § 2573, for use by the NNEPA Public Water Systems Program, and shall be expended in accordance with the NNSDWA and the approved Fund Management Plan.

PART IX RECLAIMED WATER

§ 901. Applicability

A. The provisions of this Part apply to the following:

1. All wastewater treatment systems that generate reclaimed water for direct reuse or blending. Such WWTSs do not include small capacity on-site WWTSs. They may include large capacity on-site WWTSs that discharge into surface ponds but only if further wastewater treatment is provided.

2. All reclaimed water blending facilities.

3. All reclaimed water agents.

4. All end users, including all persons who directly reuse reclaimed water combined with industrial wastewater or with reclaimed industrial water and all persons who directly reuse reclaimed industrial water in the production or processing of a crop or substance that may be used ~~to cover the cost of examination services, training material reproduction, postage, and other certification~~ as human or animal food.

B. The WWTS shall notify end users of the use requirements under this Part.

C. Nothing in this Part exempts the disposal of reclaimed water or reclaimed industrial water from the Aquifer Protection Permit requirements, NNPDWR § 2611-2625, or any other applicable provisions of the NNPDWR.

§ 902. Definitions

The following definitions shall apply:

1. "Direct reuse" means the beneficial use of reclaimed water for a purpose allowed by this Part. The following are not direct reuses of reclaimed water:

   a. The use of water subsequent to its discharge under the conditions of a National, or Navajo Nation, Pollutant Discharge Elimination System permit;

   b. The use of water subsequent to its discharge under the conditions of an Aquifer Protection Permit issued under Part 26 of the Navajo Nation Primary Drinking Water Regulations (NNPDWR).

   c. The use of industrial wastewater, reclaimed water, or both, in a workplace subject to a federal program that protects workers from workplace exposures; or

   d. The use of potable water.

2. "Direct reuse site" means an area permitted for the application or impoundment of reclaimed water. An impoundment operated for disposal under an Aquifer Protection Permit is not a direct reuse site.

3. "End user" means a person who directly reuses reclaimed water meeting the standards for Classes A+, A, B+, B, and C in this Part.

4. "Industrial wastewater" means wastewater generated from an industrial process.

5. "Industrial wastewater treatment facility" means a wastewater treatment facility that treats and disposes of industrial wastewater rather than domestic wastewater.

6. "Irrigation" means the beneficial use of water or reclaimed water, or both, for growing crops, turf, or silviculture, or for landscaping.

7. "NTU" is a nephelometric turbidity unit based on a standard method using formazin polymer or its equivalent as the standard reference suspension. Nephelometric turbidity measurements expressed in units of NTU are numerically identical to the same measurements expressed in units of FTU (formazin turbidity units).

8. "Open access" means that access to reclaimed water by the general public is uncontrolled.

9. "Reclaimed industrial water" means water that has been treated or processed by an industrial wastewater treatment facility for reuse.

10. "Reclaimed water" means water that has been treated or processed by a wastewater treatment system for reuse.

11. "Reclaimed water agent" means a person who holds a permit to distribute reclaimed water to more than one end user.

12. "Reclaimed water blending facility" means an installation or method of operation that receives reclaimed water from a wastewater treatment system or another reclaimed water blending facility classified to produce Class C or better reclaimed water and blends it with other water so that the produced water may be used for a higher-class purpose listed in Table 11 of this Part.

13. "Restricted access" means that access to reclaimed water by the general public is controlled.

14. "Turbidity" means the optical clarity of water that causes incident light to be scattered or absorbed rather than transmitted in straight lines.

§ 903. General Provisions

A. Reclaimed water and reclaimed industrial water may be used only as allowed in these provisions and as specified in the applicable permit.

1. WWTSs, reclaimed water blending facilities, reclaimed water agents, and end users must comply with all applicable requirements set forth in permits issued under this Part. Permit applications may be obtained from the Director.

B. Consistent with Section 115, the Director will process permit applications, prepare draft permits, provide for public notice and hearing, and issue final permits pursuant to Subpart 2 of the Uniform Rules. Judicial review of final permit actions is available pursuant to Uniform Rules § 214, the NNCWA, and the NNSDWA.

C. Requirement to Obtain a Permit

1. Wastewater treatment system. A wastewater treatment system owner or operator subject to this Part may provide reclaimed water for direct reuse only under a Reclaimed Water Individual Permit issued under this Part. A Reclaimed Water Individual Permit is required in addition to any construction permit required under Part II or operating permit required under Part III of these regulations.

2. Additional treatment. If an owner or operator of a WWTS accepts reclaimed water and provides additional treatment for a higher quality direct reuse, the WWTS shall obtain and operate under the requirements of a Reclaimed Water Individual Permit issued under this Part.

3. Reclaimed water blending facility. An owner or operator of a reclaimed water blending facility shall not conduct blending operations without obtaining a Reclaimed Water Individual Permit or a Reclaimed Water General Permit.

4. Reclaimed water agent. A person shall not operate as a reclaimed water agent without obtaining a Reclaimed Water Agent Individual Permit or a Reclaimed Water Agent General Permit.

5. End user. Direct reuses of reclaimed water may proceed under an End User Individual Permit or an End User General Permit.

D. The following direct reuses are prohibited unless an End User Individual Permit is obtained:

1. Direct reuse of reclaimed water that is combined with industrial wastewater or with reclaimed industrial water.

2. Direct reuse of reclaimed industrial water for production or processing of a crop or substance that may be used as human or animal food.

3. Direct reuse of industrial wastewater containing sewage.

All other direct reuses of reclaimed water may proceed under an End User General Permit.

E. Listed Uses:

1. The required Class of reclaimed water for each use is listed in Table 11.

2. A person shall use only Class A reclaimed water for a type of direct reuse listed as Class A in Table 11. A person may use Class A reclaimed water for a type of direct reuse listed as Class B or Class C in Table 11.

3. A person shall use a minimum of Class B reclaimed water for a type of direct reuse listed as Class B in Table 11. A person may use Class B reclaimed water for a type of direct reuse listed as Class C in Table 11. A person shall not use Class B reclaimed water for a type of direct reuse listed as Class A in Table 11.

4. A person shall use a minimum of Class C reclaimed water for a type of direct reuse listed as Class C in Table 11. A person shall not use Class C reclaimed water for a type of direct reuse listed as Class A or Class B in Table 11.

5. Irrigating with reclaimed water. A permittee irrigating with reclaimed water shall:

a. Use application methods that reasonably preclude human contact with reclaimed water;

b. Prevent reclaimed water from standing on open access areas during normal periods of use;

c. Prevent reclaimed water from coming into contact with drinking fountains, water coolers, or eating areas; and

d. Secure hose bibbs discharging reclaimed water to prevent use by the public.

F. Other Uses

1. Any direct reuse not listed in Table 11 and any direct reuse listed in Subsection 903(D) shall require an End User Individual Permit. Before issuing such permit, the Director shall, using best professional judgment, determine and require compliance with reclaimed water quality requirements needed to protect public health and the environment, and shall include those requirements in the

permit.

2. The Director may determine that Class A+, A, B+, B, or C reclaimed water is appropriate for a new type of direct reuse or for a direct reuse listed in Subsection 903(D).

3. The Director shall consider the following factors when prescribing reclaimed water quality requirements for a new type of direct reuse or for a direct reuse listed in Subsection 903(D):

a. The risk to public health;

b. The degree of public access to the site where the reclaimed water is reused and human exposure to the reclaimed water;

c. The level of treatment necessary to ensure that the reclaimed water is aesthetically acceptable;

d. The level of treatment necessary to prevent nuisance conditions;

e. Specific water quality requirements for the intended type of direct reuse;

f. The means of application of the reclaimed water;

g. The degree of treatment necessary to avoid a violation of surface water quality standards or aquifer water quality standards;

h. The potential for improper or unintended use of the reclaimed water;

i. The reuse guidelines, criteria, or standards adopted or recommended by the U.S. Environmental Protection Agency or other federal or state agencies that apply to the new type of direct reuse; and

j. Similar wastewater reclamation experience of reclaimed water providers in the United States.

G. Prohibited activities:

1. Irrigating with untreated sewage;

2. Providing or using reclaimed water for any of the following activities:

a. Direct reuse for human consumption;

b. Direct reuse for swimming, wind surfing, water skiing, or other full-immersion water activity with a potential of ingestion; or

c. Direct reuse for evaporative cooling or misting.

3. Misapplying reclaimed water for any of the following reasons:

a. Application of a stated class of reclaimed water that is of lesser quality than allowed by this Part for the type of direct reuse at issue;

b. Application of reclaimed water to any area other than a direct reuse site; or

c. Allowing runoff of reclaimed water or reclaimed water mixed with stormwater from a direct reuse site, except for:

i. Agricultural return flow that is directed onto an adjacent field or returned to an open water conveyance; or

ii. A discharge authorized by an individual or general NPDES or NNPDES permit.

H. A permittee shall place and maintain signage at locations specified in Table 12 so the public is informed that reclaimed water is in use and that no one should drink from the system.

Table 11. Minimum Reclaimed Water Quality Requirements for Direct Reuse

Type of Direct Reuse	Minimum Class of Reclaimed Water Required
Irrigation of food crops	A
Recreational impoundments	A
Residential landscape irrigation	A
Schoolground landscape irrigation	A
Open access landscape irrigation	A
Toilet and urinal flushing	A
Fire protection systems	A
Spray irrigation of an orchard or vineyard	A
Commercial closed loop air conditioning systems	A
Vehicle and equipment washing (does not include self-service vehicle washes)	A
Surface irrigation of an orchard or vineyard	B
Golf course irrigation	B
Restricted access landscape irrigation	B
Landscape impoundment	B
Dust control	B
Soil compaction and similar construction activities	B
Pasture for milking animals	B
Livestock watering (dairy animals)	B
Concrete and cement mixing	B
Materials washing and sieving	B
Pasture for non-dairy animals	C
Livestock watering (non-dairy animals)	C
Irrigation of fiber, seed, forage, and similar crops	C
Silviculture	C

§ 904. Class A Reclaimed Water

A. Class A reclaimed water is wastewater that has undergone secondary treatment, filtration, and disinfection. Chemical feed facilities to add coagulants or polymers are required to ensure that filtered effluent before disinfection complies with the 24-hour average turbidity criterion prescribed in subsection (B)(1) of this

Section. Chemical feed facilities may remain idle if the 24-hour average turbidity criterion in subsection (B)(1) is achieved without chemical addition.

B. An owner of a WWTS shall ensure that:

1. The turbidity of Class A reclaimed water at a point in the wastewater treatment process after filtration and immediately before disinfection complies with the following, unless provided otherwise in the permit:

   a. The 24-hour average turbidity of filtered effluent is two Nephelometric Turbidity units or less. The 24-hour average turbidity shall be calculated from readings from a continuous recording turbidimeter. The turbidimeter shall have a signal averaging time not exceeding 120 seconds. It shall be placed at a point in the wastewater treatment process after filtration and immediately before disinfection.

   b. The turbidity of filtered effluent does not exceed five Nephelometric Turbidity units at any time.

2. Class A reclaimed water meets the following criteria after disinfection treatment and before discharge to a reclaimed water distribution system:

   a. There are no detectable fecal coliform organisms in four of the last seven daily reclaimed water samples taken, and

   b. The single sample maximum concentration of fecal coliform organisms in a reclaimed water sample is less than 23/100 ml.

   c. If alternative treatment processes or alternative turbidity criteria are used, or reclaimed water is blended with other water to produce Class A reclaimed water under subsection (C), there are no detectable enteric virus in four of the last seven monthly reclaimed water samples taken.

3. Water may be upgraded to A+ if the 5-sample geometric mean concentration of total nitrogen in a reclaimed water sample is less than 10 mg / L.

C. An owner of a WWTS may use alternative treatment methods other than those required by subsection (A), or comply with alternative turbidity criteria other than those required by subsection (B)(1), or blend reclaimed water with other water to produce Class A reclaimed water provided the owner demonstrates through pilot plant testing, existing water quality data, or other means that the alternative treatment methods, alternative turbidity criteria, or blending reliably produces a reclaimed water that meets the disinfection criteria in subsection (B)(2) before discharge to a reclaimed water distribution system.

§ 905. Class B Reclaimed Water

A. Class B reclaimed water is wastewater that has undergone secondary treatment and disinfection.

B. An owner of a WWTS shall ensure that Class B reclaimed water meets the following criteria after disinfection treatment and before discharge to a reclaimed water distribution system:

1. The concentration of fecal coliform organisms in four of the last seven daily reclaimed water samples is less than 200 / 100 ml.

2. The single sample maximum concentration of fecal coliform organisms in a reclaimed water sample is less than 800 / 100 ml.

3. Water may be upgraded to a B+ rating if the 5-sample geometric mean concentration of total nitrogen in a reclaimed water sample is less than 10 mg / L.

§ 906. Class C Reclaimed Water

A. Class C reclaimed water is wastewater that has undergone secondary treatment in a series of wastewater stabilization ponds, including aeration, with or without disinfection.

B. The owner of a WWTS shall ensure that:

1. The total retention time of Class C reclaimed water in wastewater stabilization ponds is at least 20 days.

2. Class C reclaimed water meets the following criteria after treatment and before discharge to a reclaimed water distribution system:

a. The concentration of fecal coliform organisms in four of the last seven reclaimed water samples taken in less than 1000 / 100 ml.

b. The single sample maximum concentration of fecal coliform organisms in a reclaimed water sample is less than 4000 / 100 ml.

§ 907. Conveyance and Signage

A. Reclaimed water may be conveyed through open water conveyances, as specified in Section 910, or by pipeline, as specified in Section 911.

B. Signage must be consistent with Table 12.

C. All impoundments with open access including lakes, ponds, ornamental fountains, waterfalls, and other water features shall be posted with signs regardless of the class of reclaimed water.

Table 12. Signage Requirements for Direct Reuse Sites

Reclaimed Water Class	Hose Bibbs	Residential Irrigation	Schoolground Irrigation	Other Open Access Irrigation	Restricted Access Irrigation	Mobile Reclaimed Water Dispersal
A+	Each bibb	Front yard, or all entrances to a subdivision if the signage is supplemented by written yearly	On premises visible to staff and students	None	None	Back of truck or on tank

		notification to individual homeowners by the homeowner's association.				
A	Each bibb	Front yard, or all entrances to a subdivision if the signage is supplemented by written yearly notification to individual homeowners by the homeowner's association.	On premises visible to staff and students	None	None	Back of truck or on tank
B+	Each bibb	Direct Reuse Not Allowed	Direct Reuse Not Allowed	Direct Reuse Not Allowed	1. Ingress points 2. On premises or at reason-ably spaced intervals not more than 1/4 mile, as applicable to the use 3. Notice on golf score cards, if applicable	Back of truck or on tank
B	Each bibb	Direct Reuse Not Allowed	Direct Reuse Not Allowed	Direct Reuse Not Allowed	1. Ingress points 2. On premises or at reason-ably spaced intervals not more than 1/4 mile, as applicable to the use 3. Notice on golf score cards, if applicable	Back of truck or on tank

C	Each bibb	Direct Reuse Not Allowed	Direct Reuse Not Allowed	Direct Reuse Not Allowed	1. Ingress points 2. On premises or at reason-ably spaced intervals not more than 1/4 mile, as applicable to the use	Back of truck or on tank

§ 908. Open Water Conveyances

A. "Open water conveyance" means any constructed open waterway, including canals and laterals, that transports reclaimed water from a WWTS to a reclaimed water blending facility or from a WWTS or reclaimed water blending facility to the point of land application or end use. An open water conveyance does not include waters of the United States.

B. A person shall maintain an open water conveyance to prevent release of reclaimed water except as allowed under federal and state regulations. The maintenance program shall include periodic inspections and follow-up corrective measures to ensure the integrity of conveyance banks and capacity of the conveyance to safely carry operational flows.

C. Conveyances shall be constructed so as to prevent access by livestock, including through construction of fences, where appropriate.

D. Signage for Reclaimed Water with water quality below Class A. A person shall:

1. Ensure that signs state: "CAUTION: RECLAIMED WATER, DO NOT DRINK," and display the international "do not drink" symbol.

2. Place signs at all points of ingress and, if the open water conveyance is operated with open access, at least every 1/4-mile along the length of the open water conveyance; and

3. Ensure that signs are visible and legible from both sides of the open water conveyance.

§ 909. Pipeline Conveyance

A. "Pipeline conveyance" means any system of pipelines that transports reclaimed water from a WWTS to a reclaimed water blending facility or from a WWTS or reclaimed water blending facility to the point of land application or end use.

B. Applicability.

1. Any person constructing a pipeline conveyance on or after January 1, 2001, whether new or a replacement of an existing pipeline, shall meet the requirements of this Part.

2. Any person who has constructed a pipeline conveyance before January 1, 2001, is considered to be in compliance with this Part.

C. A person shall design and construct a pipeline conveyance system using good engineering judgement and the following standards of practice:

1. Reclaimed water does not find its way into, or otherwise contaminate, a potable water system;

2. System structural integrity is maintained; and

3. The capability for inspection, maintenance, and testing is maintained.

D. A person shall construct a pipeline conveyance and all appurtenances conducting reclaimed water to withstand a static pressure of at least 50 pounds per square inch greater than the design working pressure without leaking as determined in A.A.C. R18-9-E301(D)(2)(j).

E. A person shall provide a pipeline conveyance with thrust blocks or restrained joints where needed to prevent excessive movement of the pipeline.

F. The following requirements for minimum separation distance apply. A person shall:

1. Locate a pipeline conveyance no closer than 50 feet from a drinking water well, unless the pipeline conveyance is constructed as specified under subsection (F)(3);

2. Locate a pipeline conveyance no closer than two feet vertically nor six feet horizontally from a potable water pipeline unless the pipeline conveyance is constructed as specified under subsection (F)(3);

3. Construct a pipeline conveyance that meets the minimum separation distances specified in subsections (F)(1) and (F)(2) by encasing the pipeline conveyance in at least six (6) inches of concrete or using mechanical joint ductile iron pipe or other materials of equivalent or greater tensile and compressive strength at least ten (10) feet beyond any point on the pipeline conveyance within the specified minimum separation distance; and

4. If a reclaimed water system is supplemented with water from a potable water system, separate the potable water system from the pipeline conveyance by an air gap.

G. A person shall:

1. For a pipeline conveyance eight (8) inches in diameter or less, use pipe colored purple or wrapped with durable purple tape and marked on opposite sides in English: “CAUTION: RECLAIMED WATER, DO NOT DRINK” in intervals of three (3) feet or less.

2. For a mechanical appurtenance to a pipeline conveyance, ensure that the mechanical appurtenance is colored purple or legibly marked to identify it as part of the reclaimed water distribution system and distinguish it from systems for potable water distribution and sewage collection.

§ 910. Reclaimed Water Individual Permits - General Provisions

A. This section applies to all Reclaimed Water Individual Permits, which consist of Individual Permits for WWTSs that generate reclaimed water for direct reuse or blending, reclaimed water blending facilities, reclaimed water agents, and end users.

B. A Reclaimed Water Individual Permit obtained under this Part:

1. Is valid for five years;

2. May be amended, transferred, reissued, or revoked based on whether the Director determines that the permittee meets the terms of the individual permit and the requirements of these regulations; and

3. Continues beyond its expiration date, pending the issuance of a new permit, if the following conditions are met:

a. The permittee submits an application for a new permit at least 120 days before the expiration of the existing permit; and

b. The permitted activity is of a continuing nature.

C. A Reclaimed Water Individual Permit shall specify, if applicable:

1. The class of reclaimed water to be applied for direct reuse;

2. Specific reuse applications or limitations on reuse;

3. Requirements for monitoring reclaimed water quality and flow to demonstrate compliance with this Part;

4. Requirements for reporting the following data to demonstrate compliance with this Part:

a. Water quality test results demonstrating that the reclaimed water meets the applicable standards for the class of water identified pursuant to paragraph 1 of this Subsection (C), and

b. The total volume of reclaimed water generated for direct reuse.

5. Requirements for maintaining records of all monitoring information and monitoring activities that include:

a. The date, description of sampling location, and time of sampling or measurement;

b. The name of the person who performed the sampling or measurement;

c. The date the analyses were performed;

d. The name of the person who performed the analyses;

e. The analytical techniques or methods used;

f. The results of the analyses; and

g. Documentation of sampling technique, sample preservation, and transportation, including chain-of-custody forms.

6. Requirements to retain all monitoring activity records and results, including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records, for five years from the date of sampling or analysis. The Director may extend the five-year retention period:

a. During the course of an unresolved litigation regarding compliance with the permit conditions, or

b. For any other justifiable cause.

7. A requirement to allow all end users access to the records of physical, chemical, and biological quality of the reclaimed water.

D. A permittee may transfer a Reclaimed Water Individual Permit to another person if the following conditions are met:

1. The permittee notifies the Director of the proposed transfer.

2. The permittee submits a written agreement containing a specific date for the transfer of permit responsibility and coverage between the current permittee and the proposed new permittee, including an acknowledgment that the existing permittee is liable for violations up to the date of transfer and that the proposed new permittee will be liable for violations from that date forward.

3. The notice required in this subsection contains any information for the proposed new permittee that is a change from the information submitted under subsection (C) of this Section or subsection 911(B)(1).

§ 911. Reclaimed Water Individual Permit Application for Wastewater Treatment Systems and Reclaimed Water Blending Systems

A. To apply for a Reclaimed Water Individual Permit for a Wastewater Treatment System or a Reclaimed Water Blending System, a person shall provide the DWWP with:

1. The following information on a form provided by the DWWP:

a. The name, mailing address, email address, and telephone number of the owner or operator of the facility and the Reclaimed Water Agent, if any;

b. The social security number of the applicant, if the applicant is an individual;

c. The legal description of the site of the WWTS or Reclaimed Water Blending System, including latitude and longitude coordinates;

d. Any other federal or state environmental permits issued to the applicant;

e. The source of reclaimed water to be directly reused or blended;

f. The applicant's signature certifying that the information submitted in the application is true and accurate to the best of the applicant's knowledge.

2. The applicable permit fee specified in Section 915.

B. In addition to the requirements in subsection (A) of this Section, when industrial wastewater influences the characteristics of reclaimed water then an application for a Reclaimed Water Individual Permit shall include:

1. An identification of each source of the industrial wastewater with Standard Industrial Code, and the projected rates and volumes from each source;

2. The chemical, biological, and physical characteristics of the industrial wastewater from each source; and

3. If reclaimed water will be used in the processing of any crop or substance that may be used as human or animal food, information regarding food safety and any potential adverse health effects of this direct reuse.

§ 912. Application For End User Individual Permit

A. An applicant for an Individual Permit for an End User shall provide the DWWP with the following information on a form provided by the DWWP:

1. The name, mailing address, email address, and telephone number of the applicant and the Reclaimed Water Agent, if any;

2. The social security number of the applicant, if the applicant is an individual;

3. Any other federal or state environmental permits issued to the applicant;

4. The source of reclaimed water to be directly reused;

5. A system map and legal description of the direct reuse site, including latitude and longitude coordinates;

6. The volume of reclaimed water to be directly reused on an annual basis;

7. The class of reclaimed water to be directly reused;

8. A description of the direct reuse activity, including, if applicable, a description of acreage and the type of vegetation to be irrigated;

9. If the reclaimed water will be used in the processing of any crop or substance that may be used as human or animal food, information regarding food safety and any potential adverse health effects of this direct reuse; and

10. The applicant's signature certifying that the information submitted in the application is true and accurate to the best of the applicant's knowledge

B. The applicant shall submit the applicable permit fee pursuant to Section 915.

§ 913. Application for a Reclaimed Water Agent Individual Permit; Other Requirements

A. An applicant for a Reclaimed Water Agent Individual Permit shall provide the DWWP with the following information on a form provided by the DWWP:

1. The name, mailing address, email address, and telephone number of the applicant;

2. The social security number of the applicant, if the applicant is an individual;

3. Any other federal or state environmental permits issued to the applicant;

4. The following information for each end user to be supplied reclaimed water by the applicant:

a. The name, address, e-mail address, and telephone number of the end user;

b. A system map showing the locations of the direct reuse sites and the latitude and longitude coordinates of each site; and

c. A description of each direct reuse activity;

5. The source, class, and annual volume of reclaimed water to be delivered by the applicant;

6. A copy of the agreement between the applicant and each end user; and

7. The applicable permit fee specified under Section 915.

B. Every Reclaimed Water Agent shall notify its end users of the requirement to apply for an End User Individual Permit under Section 912 or request coverage under an End User General Permit under Section 914. The Reclaimed Water Agent shall enter into an agreement with each end user referencing the applicable requirements in this Part.

C. A Reclaimed Water Agent shall record and report the following information to the DWWP by January 31 every year, for the immediately preceding year:

1. The total volume of reclaimed water delivered by the reclaimed water agent;

2. The volume of reclaimed water delivered to each end user for each class of reclaimed water; and

3. Any change in the information submitted under subsection (A).

§ 914. General Permits

A. The DWWP may issue general permits for various categories of end users (other than for the end uses listed in Section 903(D)), reclaimed water blending facilities, and reclaimed water agents if the DWWP determines that there are categories for which the permit requirements would be substantially similar.

1. The DWWP will determine, in its unreviewable discretion, which categories are appropriate to be subject to general permits.

2. The DWWP will prepare draft general permits, provide for public notice and hearing, and issue final general permits pursuant to Subpart 2 of the Uniform Rules.

3. Draft and final general permits will be posted on the DWWP website. A final general permit will become effective sixty (60) days after it is posted on the website.

4. For purposes of judicial review, issuance of a general permit is considered final agency action with respect to all aspects of the general permit except its applicability to an individual person or facility applying for coverage under the general permit.

B. End users (other than for the end uses listed in Section 903(D)), reclaimed water blending facilities, and reclaimed water agents may apply for coverage under an applicable general permit. Otherwise, they shall apply for an individual permit pursuant to Sections 910-913, as applicable. WWTSs may apply only for an individual permit, as provided in subsection 903(C)(2).

C. A general permit will identify the specific category to which the general permit applies, the criteria that must be met to qualify for coverage under the general permit, the term of the general permit (which may be longer than the five (5) years specified in Section 910(B)(1) for individual permits), and information regarding how to request coverage under the general permit, including but not limited to:

1. The name and mailing address for submitting the request for coverage;

2. The procedure to obtain any standard application forms that DWWP has developed;

3. The information that must be provided to the DWWP to demonstrate eligibility for coverage under the general permit;

4. The fee for review of the request for coverage, which will be adjusted annually for inflation pursuant to the procedure specified in Section 917 and which is not refundable if the request for coverage is denied; and

5. Any other application requirements that DWWP deems necessary.

D. DWWP will post the request for coverage on its website and act on the request as soon as practicable. DWWP will notify the applicant of the final decision on coverage within ninety (90) days of receipt of the coverage request. Included within these ninety (90) days is a forty-five (45)-day completeness review period for the DWWP to determine if a request for coverage is complete.

E. Within thirty (30) days after receipt of a request for coverage, the DWWP must request any additional information necessary to process the request and the applicant must submit such information within fifteen (15) days. If the applicant fails to do so and this results in a delay that is beyond the forty-five (45)-day completeness review period, the ninety (90)-day permit issuance period for a general permit will be extended by the additional days taken to submit the requested information beyond the forty-five (45)-day period. If the DWWP fails to notify the applicant within a thirty (30)-day period of any additional information necessary to process the coverage request, the applicant will still have fifteen (15) days to

submit such information and the DWWP must still grant or deny the request for coverage within the ninety (90)-day general permit issuance period without any time extension.

F. If the DWWP determines that the request for coverage has all the relevant information and is complete, it will notify the applicant in writing, by mail or email, as soon as that determination is made and will post it on the DWWP website. If the applicant does not receive a request for additional information or a notice of completeness within the forty-five (45)-day completeness review period described in Subsection D of this Section, the request will be deemed complete.

G. If the request for coverage is approved, the permittee water blending facility or end user must post, prominently, a copy of the letter granting the request at the site where the source is located or will be locating or where the water is being or will be used, A reclaimed water agent must keep a copy of the permit in his or her places of business. The permittee must comply with all conditions and terms of the general permit and is subject to enforcement action for failure to do so.

H. If the DWWP denies the request for coverage, the applicant shall obtain an individual permit.

~~A.~~I. After review of a request for coverage under a general permit, the DWWP will send a letter, by mail or email, to the applicant with notice of coverage or denial of coverage. The DWWP also will post decisions on coverage on the DWWP website. Subpart 2 of the Uniform Rules (Uniform Permit Review Procedures) applies to decisions on coverage, except that the DWWP may grant or deny requests for coverage without conducting the public participation procedures required under § 207 of the Uniform Rules (and the related ~~costs.~~provisions in Uniform Rules §§ 208 – 211).

J. Notwithstanding Uniform Rules § 212(b), a final decision to grant or deny coverage is effective immediately.

K. Judicial review. Notices of coverage and denials of coverage under a general permit are subject to judicial review only as to the issue of whether the applicant qualifies for coverage under the general permit.

§ 915. Fees for Reclaimed Water Individual Permits

A. Applicants for individual reclaimed water permits, permit modifications, and renewals shall be assessed a fee in accordance with the provisions set forth in this Part.

B. A fee assessed under this Part is not refundable if the permit, modification, or renewal to which it applies or any application for the same is denied or withdrawn.

C. Applications for reclaimed water individual permits, permit modifications, and renewals shall be accompanied by the following fees. Application, modification, and renewal fees for permits for "Additional Treatment," issued pursuant to Subsection 903(C)(2), will be assessed on a case-by-case basis.

Table 13. Reclaimed Water Individual Permit Fees

WWTS Generating Reclaimed Water for Direct Reuse or Blending	
New application	$600
Modification	$450
Renewal	$450

Reclaimed Water Blending Facility	
New application	$1,500
Modification	$1,250
Renewal	$1,250
Reclaimed Water Agent	
New application	$1,500
Modification	$1,250
Renewal	$1,250
Reclaimed Water End User	
New application	$600
Modification	$450
Renewal	$450

§ 916. Reduction of Fee

An applicant for an individual permit (except for a major industrial or major municipal system) may request the Director to reduce a fee listed above by no more than one-half upon a showing of the owner or operator that the full permit fee would cause a severe economic hardship. The request for reduction of fee shall be submitted with the permit application along with the amount of the proposed reduced fee. If the request is denied, the Director will bill the applicant for the remaining portion of the fee, which shall be due thirty (30) days after the date of receipt of the bill from the Director.

§ 917. Fee Adjustments

A. The fees in Section 915 of these regulations will automatically change each year to reflect changes in the Consumer Price Index ("CPI") by adjusting the fee by the change in the average annual CPI inflation over the preceding year, rounded to the nearest multiple of $1, as published by the Bureau of Labor Statistics, using the calculator found at http://www.bls.gov/data/inflation_calculator.htm. The Director will post the adjusted fee on the NNEPA website at the beginning of each year and on application documents. In his or her discretion, the Director may decide not to adjust the fee in a particular year.

B. In addition to the automatic fee adjustment provided in Subsection (A) of this section, the Director may revise the fee schedule as he or she deems appropriate pursuant to the provisions for rulemakings in the Uniform Rules §§ 401-410.

C. The applicant or permittee must pay the fee in the amount posted on NNEPA's website as of the date the applicable forms and applications are submitted.

§ 918. Account

Monies derived from fees under this regulation shall be deposited into the PWS Fund, which is the special revenue account established under the NNSDWA, 22 N.N.C. § 2573, for use by the NNEPA Public Water Systems Program, and shall be expended in accordance with the NNSDWA and the approved Fund Management Plan.