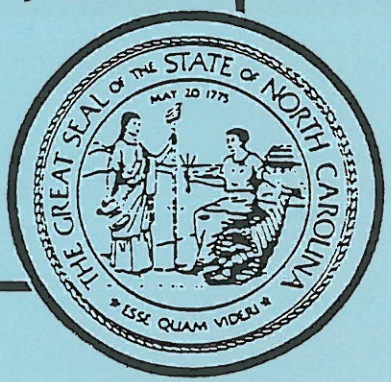
STATE OF NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL MANAGEMENT

Administrative Code Section:
15A NCAC 2H .0200 - Waste Not Discharged to Surface Waters

Amended Effective: February 1, 1994

Environmental
Management Commission
Raleigh, North Carolina



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.0201 PURPOSE

These rules set forth the requirements and procedures for application and issuance of permits for the following systems which do not discharge to surface waters of the state:

(1) sewer systems;
(2) disposal systems;
(3) treatment works; and
(4) residual and residue disposal/utilization systems;
(5) animal waste management systems; and
(6) treatment of petroleum contaminated soils.

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.1;
Eff. February 1, 1976;
Amended Eff. February 1, 1993; November 1, 1987.

.0202 SCOPE

These rules apply to all persons proposing to construct, alter, extend, or operate any sewer system, treatment works, disposal system, petroleum contaminates soil treatment system, animal waste management system or residual disposal/utilization system which does not discharge to surface waters of the state, including systems which discharge waste onto or below land surface. However, these rules do not apply to sanitary sewage systems or solid waste management facilities which are permitted under the authority of the Commission for Health Services.

History Note: Statutory Authority G.S. 130A-335; 143-215.1; 143-215.3(a)(1);
Eff. February 1, 1976;
Amended Eff. February 1, 1993; November 1, 1987.

.0203 DEFINITION OF TERMS

The terms used in this Section shall be as defined in G.S. 143-213 except for G.S. 143-213(15) and (18)a. and as follows:

(1) "Agronomist" means an individual who is a Certified Professional Agronomist by ARCPACS (American Registry of Certified Professionals in Agronomy, Crops and Soil) or an individual with a demonstrated knowledge in agronomy.
(2) "Animal waste" means livestock or poultry excreta or a mixture of excreta with feed, bedding, litter or other materials.
(3) "Animal waste management system" means a combination of structural and non-structural practices which will properly collect, treat, store or apply animal waste to the land such that no discharge of pollutants occurs to surface waters of the state by any means except as a result of a storm event more severe than the 25-year, 24-hour storm.
(4) "Approved animal waste management plan" means a plan to properly collect, store, treat or apply animal waste to the land in an environmentally safe manner and approved according to the procedures established in 15A NCAC 2H .0217(a)(1)(H).
(5) "Bedrock" means any consolidated or coherent and relatively hard, naturally-formed mass of mineral matter which cannot be readily excavated without the use of explosives or power equipment.
(6) "Building" means any structure or part of a structure built for the separate shelter or enclosure of persons, animals, chattels, or property of any kind and which has enclosing walls for at least 50 percent of its perimeter. Each unit separated from other units by a four hour fire wall shall be considered as a separate building.
(7) "Building drain" means that part of the lowest piping of a drainage system which receives waste from inside the building and conveys it to the building sewer which begins ten feet outside the building wall.
(8) "Building sewer" means that part of the horizontal piping of a drainage system which receives the

discharge from a single building drain and conveys it directly to a public sewer, private sewer, or on-site sewage disposal system. Pipelines or conduits, pumping stations and appliances appurtenant thereto will not be considered to be building sewers if they traverse adjoining property under separate ownership or travel along any highway right of way.

(9) "C horizon" means the unconsolidated material underlying the soil solum, which may or may not be the same as the parent material from which the solum is formed but is below the zones of major biological activity and exhibits characteristics more similar to rock than to soil.

(10) "Director" means the Director of the Division of Environmental Management, Department of Environment, Health, and Natural Resources or his delegate.

(11) "Dedicated site" means a site:

(a) to which residuals are applied at rates or frequencies greater than agronomically justifiable, or where the primary use of the land is for residual disposal and crop or ground cover production is of secondary importance,

(b) any residual disposal site designated by the Director, or

(c) where the primary use of the land is for the repetitive treatment of soils containing petroleum products or petroleum contaminated residues and crop or ground cover production is of secondary importance.

(12) "Deemed permitted" means that a facility is considered as having a needed permit and being compliant with the permitting requirements of G.S. 143-215.1(a) even though it has not received an individual permit for its construction or operation.

(13) "Division" or "(DEM)" means the Division of Environmental Management, Department of Environment, Health, and Natural Resources.

(14) "Existing animal waste management system" means any animal waste management system which:

(a) was completed and was being operated on the effective date of this Rule,

(b) serves a feedlot stocked with animals after the effective date of this Rule and has been deemed permitted pursuant to 15A NCAC 2H .0217(a)(1), or

(c) serves a feedlot that has been abandoned or unused for a period of less than four years.

(15) "Expanded animal waste management system" means animal waste treatment and storage facilities which require an increase over the existing animal waste design treatment and storage capacity due to an increase in animal population at the feedlot.

(16) "Feedlot" means a lot or building or combination of lots and buildings intended for the confined feeding, breeding, raising or holding of animals and specifically designed as a confinement area in which animal waste may accumulate or where the concentration of animals is such that an established vegetative cover cannot be maintained. The confinement period must be for at least 45 days out of a 12 month period and not necessarily consecutive days. Pastures shall not be considered feedlots under this Rule.

(17) "Groundwaters" means those waters in the saturated zone of the earth as defined in 15A NCAC 2L.

(18) "Industrial wastewater" means all wastewater other than sewage and includes:

(a) wastewater resulting from any process of industry or manufacture, or from the development of any natural resource;

(b) wastewater resulting from processes of trade or business, including wastewater from laundromats and vehicle/equipment washes, but not wastewater from restaurants;

(c) stormwater will not be considered to be an industrial wastewater unless it is contaminated with an industrial wastewater;

(d) any combination of sewage and industrial wastewater;

(e) municipal wastewater will be considered to be industrial wastewater unless it can be demonstrated to the satisfaction of the Division that the wastewater contains no industrial wastewater;

(f) Petroleum contaminated groundwater extracted as part of an approved groundwater remediation system.

(19) "Infiltration Systems" means a subsurface ground absorption system expressly designed for the introduction of previously treated petroleum contaminated water into the subsurface environment.

(20) "New animal waste management system" means animal waste management systems which are constructed and operated at a site where no feedlot existed previously or where a system serving a feedlot has been abandoned or unused for a period of four years or more and is then put back into service.

(21) "Process to Further Reduce Pathogens" or "PFRP" means a residuals stabilization process that reduces pathogens to below detection levels. The procedures that may be utilized to meet this requirement are contained in 40 CFR 257, Appendix II which is hereby incorporated by reference including any subsequent amendments and editions. Copies of this publication are available from the Government Institutes, Inc., 4 Research Place, Suite 200, Rockville, MD 20850-1714 for a cost of thirty-six dollars ($36.00) each plus four dollars ($4.00) shipping and handling. Copies are also available for review at the Division of Environmental Management, Archdale Building, 512 N. Salisbury Street, P. O. Box 29535, Raleigh, North Carolina 27626-0535.

(22) "Process to Significantly Reduce Pathogens" or "PSRP" means a residuals stabilization process that provides the minimal acceptable lever of pathogen and vector attraction reduction prior to land application. The procedures that may be utilized to meet this requirement are contained in 40 CFR 257, Appendix II which is hereby incorporated by reference including any subsequent amendments and editions. Copies of this publication are available from the Government Institutes, Inc., 4 Research Place, Suite 200, Rockville, MD 20850-1714 for a cost of thirty-six dollars ($36.00) each plus four dollars ($4.00) shipping and handling. Copies are also available for review at the Division of Environmental Management, Archdale Building, 512 N. Salisbury Street, P.O. Box 29535, Raleigh, North Carolina 27626-0535.

(23) "Petroleum contaminated soil" or "Soil containing petroleum products" shall mean any soil that has been exposed to petroleum products because of any emission, spillage, leakage, pumping, pouring, emptying, or dumping of petroleum products onto or beneath the land surface and that exhibits characteristics or concentrations of typical petroleum product constituents in sufficient quantities as to be detectable by compatible laboratory analytical procedures.

(24) "Petroleum product" means all petroleum products as defined by G.S. 143-215.94A(7) and includes motor gasoline, aviation gasoline, gasohol, jet fuels, kerosene, diesel fuel, fuel oils (#1-#6), and motor oils (new and used).

(25) "Pollutant" means waste as defined in G.S. 143-213(18).

(26) "Private sewer" means any part of a sewer system which collects wastewater from more than one building, is privately owned and is not directly controlled by a public authority.

(27) "Professional engineer" means a person who is presently registered and licensed as a professional engineer by the North Carolina State Board of Registration For Professional Engineers and Land Surveyors.

(28) "Public or community sewage system" means a single system of sewage collection, treatment, or disposal owned and operated by a sanitary district, a metropolitan sewage district, a water and sewer authority, a county, a municipality, or a public utility.

(29) "Public sewer" means a sewer located in a dedicated public street, roadway, or dedicated public right-of-way or easement which is owned or operated by any municipality, county, water or sewer district, or any other political subdivision of the state authorized to construct or operate a sewer system.

(30) "Rapid infiltration system" means rotary distributor systems or other similar systems that dispose of tertiary treated waste at high surface area loading rates of greater than 1.5 gpd/ft^2.

(31) "Residuals" means any solid or semisolid waste, other than residues from agricultural products and processing generated from a wastewater treatment facility, water supply treatment facility or air pollution control facility permitted under the authority of the Environmental Management Commission.

(32) "Residues from agricultural products and processing" means solids, semi-solids or liquid residues from food and beverage processing and handling; silviculture; agriculture; and aquaculture operations permitted under the authority of the Environmental Management Commission that are non-toxic, non-hazardous and contain no domestic wastewater.

(33) "Sewage" means the liquid and solid human waste, and liquid waste generated by domestic water-using fixtures and appliances, from any residence, place of business, or place of public assembly. Sewage does not include wastewater that is totally or partially industrial wastewater, or any other wastewater not considered to be domestic waste.

(34) "Sewer system" means pipelines or conduits, pumping stations, specialized mode of conveyance and appliances appurtenant thereto, used for conducting wastes to a point of ultimate disposal.

(35) "Soil remediation at conventional rates" means the utilization of soils containing petroleum products

by land application methods, at an evenly distributed thickness not to exceed six inches.

(36) "Soil remediation at minimum rates" means the treatment of soils containing petroleum products by land application methods, at an evenly distributed application thickness not to exceed an average of one inch.

(37) "Soil scientist" means an individual who is a Certified Professional in Soils through the NCRCPS (N.C. Registry of Certified Professionals in Soils) or a Certified Professional Soil Scientist or Soil Specialist by ARCPACS (American Registry of Certified Professionals in Agronomy, Crops and Soils) or a Registered Professional Soil Scientist by NSCSS (the National Society of Consulting Soil Scientist) or can provide documentation that he/she meets the minimum education and experience requirements for certification or registration by one or more of the organizations named in this Subparagraph or upon approval by the Director, an individual with a demonstrated knowledge of Soil Science.

(38) "Staff" means the staff of the Division of Environmental Management, Department of Environment, Health, and Natural Resources.

(39) "Subsurface ground absorption sewage disposal system" means a waste disposal method which distributes waste beneath the ground surface and relies primarily on the soil for leaching and removal of dissolved and suspended organic or mineral wastes. Included are systems for public or community sewage systems and systems which are designed for the disposal of industrial wastes. Land application systems utilizing subsurface residual injection are not included.

(40) "Surface waters" means all waters of the state as defined in G.S. 143-212 except underground waters.

(41) "Toxicity test" means a test for toxicity conducted using the procedures contained in 40 CFR 261, Appendix II which is hereby incorporated by reference including any subsequent amendments and editions. Copies of this publication are available from the Government Institutes, Inc., 4 Research Place, Suite 200, Rockville, MD 20850-1714 for a cost of thirty-six dollars ($36.00) each plus four dollars ($4.00) shipping and handling. Copies are also available for review at the Division of Environmental Management, Archdale Building, 512 N. Salisbury Street, P.O. Box 29535, Raleigh, North Carolina 27626-0535.

(42) "Treatment works or disposal system which does not discharge to surface waters" means any treatment works, facility or disposal system which is designed to:

(a) operate as closed system with no discharge to waters of the state, or

(b) dispose/utilize of wastes, including residuals, residues, contaminated soils and animal waste, to the surface of the land, or

(c) dispose of wastes through a subsurface absorption system.

(43) "Waste oil" means any used nonhazardous petroleum product other than crankcase oil. Crankcase oil mixed with other used nonhazardous petroleum products will be considered as waste oil.

History Note: Statutory Authority G.S. 130A-335; 143-213; 143-215.3(a)(1);
Eff. February 1, 1976;
Amended Eff. February 1, 1993; August 1, 1988; November 1, 1987; February 1, 1986.

.0204 ACTIVITIES WHICH REQUIRE A PERMIT

No person shall do any of the things or carry out any of the activities contained in N.C.G.S. 143-215.1(a)(1) thru (10) until or unless the person shall have applied for and received a permit from the Director (or if appropriate an approved local sewer system program) and shall have complied with the conditions prescribed in the permit.

History Note: Statutory Authority G.S. 130A-335; 143-215.1; 143-215.3(a)(1);
Eff. February 1, 1976;
Amended Eff. October 1, 1987; February 1, 1986.

.0205 APPLICATION: FEES: SUPPORTING INFORMATION: REQUIREMENTS

(a) Jurisdiction. Applications for sewer system extensions under the jurisdiction of a local sewer system program shall be made in accordance with applicable local laws and ordinances. Applications for permits from the Division shall be made in accordance with this Rule as follows.

(b) Applications. Application for a permit must be made in triplicate on official forms completely filled out, where applicable, and fully executed in the manner set forth in Rule .0206 of this Section. A processing fee as described herein must be submitted with each application in the form of a check or money order made payable to N.C. Department of Environment, Health, and Natural Resources. Applications may be returned if not accompanied by the processing fee or are incomplete. The signature of the consulting engineer or other agent will be accepted on the application only if accompanied by a letter of authorization.

(c) Permit Fees.

(1) Permit Application Processing Fee. For every application for a new or revised permit under this Section, a nonrefundable application processing fee in the amount stated in Subparagraph (5) of this Paragraph shall be submitted at the time of application.

(A) Each permit or renewal application is incomplete until the application processing fee is received;

(B) For a facility with multiple treatment units under a single permit, the processing fee shall be set by the total design treatment capacity;

(C) No processing fee will be charged for modification of unexpired permits when the modifications are initiated by the Director;

(D) A processing fee of one hundred dollars ($100.00) will be charged for name changes. Name changes requested at the time of permit renewal, with no other changes, will be charged the renewal without modification fee;

(E) A full application processing fee will be charged for all modifications except for name changes; this fee will be in the same amount as shown in Subparagraph (5) of Paragraph (c) of this Rule for new applications/modifications.

(F) Permittees requesting new or modified special orders by consent, judicial orders or flow increases under G.S. 143-215.67(b), will pay a fee of four hundred dollars ($400.00)

(2) Annual Administering and Compliance Monitoring Fees. An annual fee for administering and compliance monitoring shall be charged in each year of the term of every renewable permit according to the schedule in Subparagraph (5) of this Paragraph. Annual fees will not be charged for permits which do not require renewal.

(A) Collection of annual fees shall begin on the effective date of this Rule.

(B) Annual administering and compliance monitoring fees must be paid for any facility operating on an expired permit after the effective date of this Rule. The Director shall establish an anniversary date for such a facility and notify the responsible party of the requirement to pay annual fees.

(C) For a facility with multiple treatment units under a single permit, the annual administering and compliance monitoring fee shall be set by the single treatment system with the highest fee in the fee schedule.

(D) A person with only one permit will be billed annually on an anniversary date to be determined by the Division. This will normally be the first day of the month of permit issuance.

(E) A person with multiple permits may have annual administering and compliance monitoring fees consolidated into one annual bill.

(F) Any permittee which has maintained full compliance with all permit conditions during the previous calendar year will have its administering and compliance monitoring annual fee reduced by 25 percent. Permittees operating under interim limits, judicial orders, or special orders by consent will not be eligible for any discount. Full compliance will be established if it can be certified by the Director that no Notice of Noncompliance, Notice of Violation or penalty assessment was sent to the permittee during the compliance period being considered. If a Notice of Noncompliance or Notice of Violation was based on erroneous information, the Director can send a letter of correction to the permittee clearing the record for compliance purposes.

(G) A change in the facility which changes the annual fee set by Subparagraph (5) of Paragraph (c) of this Rule will result in the revised annual fee being billed in all remaining whole permit years.

(H) Closed-loop recycle or evaporative systems, which store or recycle industrial waste and do not discharge to the surface water, groundwater or land surface, shall be charged a constant annual administering and compliance monitoring fee for all sizes of facilities at the fee amount shown by Subparagraph (5) of Paragraph (c) of this Rule.

(3) No fees are required to be paid under this Rule by a farmer who submits an application or receives a permit that pertains to farming operations.

(4) Failure to pay an annual administering and compliance monitoring fee within 30 days after being

billed may cause the Division to initiate action to revoke the permit.

(5) Schedule of Nondischarge Fees:

	PERMIT APPLICATION PROCESSING FEE		ANNUAL ADMINISTERING AND COMPLIANCE MONITORING FEE	
CATEGORY	NEW APPLICATIONS/ MODIFICATIONS/ LATE RENEWALS	TIMELY RENEWALS WITHOUT MODIFICATIONS	STANDARD	IN COMPLIANCE
>1,000,000 GPD				
Industrial	$400.	$300.	$1500.	$1125.
Sewage/Cooling Water	400.	300.	1200.	900.
10,0001 - 1,000,000 GPD				
Industrial	400.	250.	800.	600.
Sewage/Cooling Water	400.	250.	600.	450.
1,001 - 10,000 GPD				
Industrial	400.	200.	600.	450.
Sewage/Cooling Water	400.	200.	450.	300.
</=1000 GPD and Single family dwelling	240.	120.	0	0
Residuals/Residues/ Compost </=300 acres	400.	250.	600.	450.
Residuals/Residues/ Compost >/= 300 acres	400.	250.	1000.	750.
Soils Remediation: nondedicated (land application, storage and/or treatment)	400.	200.	0	0
Soils Remediation: dedicated (land application, storage and/or treatment)	400.	200.	300.	225.
Sewer extensions (nondelegated)	400.	0	0	0
Sewer extensions (delegated to municipalities)	200.	0	0	0
Closed-loop recycle or evaporative system	400.	200.	300.	225.

(6) If the total payment for fees required for all permits under G.S. 143-215.3(a)(1b) for any single facility will exceed seventy-five hundred dollars ($7,500.00) per year, then the total for all these fees will be reduced for this facility so that the total payment is seventy-five hundred dollars ($7,500.00) per year.

(7) A portion of the permit application processing fees shown in the fee schedule in Subparagraph (5)

of Paragraph (c) of this Rule will be transferred into the Wastewater Treatment Works Emergency Maintenance, Operation and Repair Fund according to the following schedule:

(A) All nonmunicipal facilities treating domestic wastewater with design flows of 100,000 gallons per day or less, except individually permitted single family dwellings and facilities with design flows of less than 1,000 GPD, seventy-five dollars ($75.00);

(B) Single family dwellings and facilities with design flows of less than 1,000 GPD, forty dollars ($40.00); and

(C) All other facilities, zero.

(8) When the total value of the Wastewater Treatment Works Emergency Maintenance, Operation and Repair Fund, as certified by the State Treasurer, is at least seven hundred fifty thousand dollars ($750,000.00) at the end of a quarter, the application processing fees for facilities with capacities of one hundred thousand gallons per day (100,000 GPD) or less shall be reduced by the amounts being transferred under Subparagraph (7) of this Paragraph. This reduction shall continue until, at the end of some subsequent quarter, the State Treasurer certifies that the fund's balance is less than seven hundred fifty thousand dollars ($750,000.00), in which case the full amount of the application processing fees as listed in Subparagraph (5) of this Paragraph shall be charged.

(9) In order to avoid violation of the statutory limit that total permit fees collected in any year not exceed 30 percent of the total budgets from all sources of environmental permitting and compliance programs, the Division shall in the first half of each state fiscal year project revenues from all sources including fees for the next fiscal year. If this projection shows that the statutory limit will be exceeded, rulemaking shall be commenced in order to have an appropriately adjusted fee schedule which will avoid excessive revenue collection from permit fees.

(d) Supporting Documents and Information. This Paragraph outlines those supporting documents and information which must be submitted for sewers, sewer extensions, and disposal systems and wastewater treatment works which do not discharge to the surface waters of the state.

(1) General requirements for all facilities required to obtain individual permits:

(A) Required sets of plans and specifications:

(i) regular projects -- two sets of detailed plans and specifications for sewer projects and four sets of detailed plans and specifications for all other projects;

(ii) federal and state grants/loan projects -- four sets of detailed plans and specifications plus federal assurances required by appropriate federal agency;

(iii) plans and specifications must be signed and sealed by a Professional Engineer. The only exceptions from the Professional Engineer requirement are as follows:

(I) projects proposing the land application of residues, residuals or compost at agronomic rates, when no storage units are being proposed and no treatment of the material is being proposed other than that provided by the soil and exposure to the atmosphere,

(II) projects proposing the land application of contaminated soils, when no storage units are being proposed and no treatment of the material is being proposed other than that provided by the soil and exposure to the atmosphere, with or without the addition of nutrients or the mechanical tilling of the soil,

(III) projects for the settling of solids from sand dredging projects or tourist gem mining operations, when the only treatment provided is settling ponds or basins,

(IV) projects utilizing only incinerating toilets,

(V) projects for the disposal/utilization of animal waste deemed to be permitted in accordance with 15A NCAC 2H .0217,

(VI) projects for ground water remediation that do not consist of any treatment or storage units,

(VII) the Director may on a case by case basis remove this exception based on documented or projected environmental impacts.

(B) Specifications describing all materials to be used, methods of construction and means for assuring the quality and integrity of the finished project;

(C) A general location map, showing orientation of the facility with reference to at least two geographic references (numbered roads, named streams/rivers, etc.);

(D) A description of the origin, type and flow of waste to be treated. Waste analysis must be extensive enough to allow a complete evaluation of the system to treat the waste and any potential impacts on the waters of the state;

(E) When required, a statement submitted that the wastewater treatment facility involved will be properly disconnected and the wastewater discharged into an adequate district or municipal system when it becomes available;

(F) Permits which result in construction of facilities which will be funded by public monies may require environmental documentation pursuant to the North Carolina Environmental Policy Act. Permit applications for which such documentation is required will not be considered complete until supported by the required documentation;

(G) If more than one acre of land is to be uncovered by a project, documentation should be supplied verifying that the applicant has completed or is working with the appropriate regional engineer of the Land Quality Section on the completion of an erosion control plan.

(H) A Residuals Management Plan must be submitted for all treatment systems that generate residuals and must include the following:

(i) A detailed explanation as to how the residuals will be stabilized. In addition if the residuals are generated from a system treating sewage, the explanation must show that the stabilization process meets EPA's criteria for a Class B residual as defined in 40 CFR 503 or the Process to Significantly Reduce Pathogens (PSRP) as defined in 40 CFR Part 257 Appendix II which is hereby incorporated by reference including any subsequent amendments and editions.

(ii) An evaluation of the residual storage requirements for the treatment facility. A minimum of 30 days storage will be required on all facilities, unless the applicant can demonstrate to the satisfaction of the Director that this requirement is unwarranted for a particular case. Storage shall be calculated based upon average residuals production rate and shall be units separate from the treatment system, i.e., not the clarifiers, aeration basins. Additional storage may be required based on the method of final disposal/utilization,

(iii) A written commitment from the permittee of a Division approved residual disposal/utilization site for the acceptance of the residual and which demonstrates that the Division approved site has adequate capacity to accept the residual,

(2) For wastewater facilities specified in G.S. 143-215.1 (d1) that are or will be jointly or commonly owned, either a copy of a properly executed operational agreement or evidence to show that the applicant has been designated as a public utility by the State Utilities Commission.

(3) For sewers and sewer extensions:

(A) design flow;

(B) rate of infiltration in gallons per day per inch of pipe diameter per mile of pipe;

(C) letter of agreement from owner or proper official of treatment works accepting the wastewater, if application is not submitted by owner or proper official having charge of treatment works;

(D) plan and profile of sewers, showing their proximity to other utilities and natural features, such as water supply lines, water lines, wells, storm drains, surface waters, roads and other trafficked areas.

(E) Construction of sewers and sewer extensions are prohibited in the following areas unless the specified determinations are made:

(i) in a natural area designated on the State Registry of Natural Heritage Areas by a protection agreement between the owner and the Secretary of the N.C. Department of Environment, Health, and Natural Resources, unless the EMC agrees that no prudent, feasible or technologically possible alternative exists;

(ii) in a natural area dedicated as a North Carolina Nature Preserve by mutual agreement between the owner and State of North Carolina (Governor and Council of State), unless the EMC recommends and the Governor and Council of State agree that no prudent, feasible or technologically possible alternative exists.

(4) For pumping stations:

(A) design calculations for pump and force main sizing;

(B) plan and profile of sewers showing their proximity to other utilities and natural features, such as water supply lines, water lines, storm drains, surface waters, roads and other trafficked areas;

(C) pump station site location map;

(D) name and classification of adjacent surface waters which could be affected by a failure.

(5) For subsurface ground absorption systems including infiltration galleries:

(A) soil evaluation of the disposal site conducted by a soils scientist to adequately evaluate the soils

to be utilized for treatment and disposal down to a depth of seven feet to include, but is not limited to, field descriptions of texture; color; structure, the depth thickness and type of restrictive horizons; pH; the presence or absence and depth of evidence of any seasonal high water table; recommendations concerning application rates of liquids, solids, and other wastewater constituents; field estimates of saturated hydraulic conductivity in the most restrictive horizon; and cation exchange capacity. Applicants may be required to dig pits when necessary for proper evaluation of the soils at the site;

(B) design data;

(C) plans of complete system including plan and profile and cross section views for all relevant system components;

(D) a map of the site, with topographic contour intervals not exceeding two feet and showing all facility-related structures and fences within the treatment, storage and disposal areas, all test auger borings or inspection pits and the location of all wells, springs, lakes, ponds, or other surface drainage features within 500 feet of the principal waste treatment/disposal site(s);

(E) For systems treating industrial waste and any system with a design flow of over 25,000 gpd, a hydrogeologic and soils description of the subsurface to a depth of 20 feet or bedrock, whichever is less. The number of borings shall be sufficient to define the following for the area underlying each major soil type at the disposal site:

(i) significant changes in lithology underlying the site;

(ii) the vertical permeability of the unsaturated zone and the hydraulic conductivity of the saturated zone, and

(iii) depth to the mean seasonal high water table (if definable from soil morphology or from evaluation of other applicable available data).

(F) For all projects with a design flow of greater than 25,000 gpd, a determination of transmissivity and specific yield of the unconfined aquifer based on withdrawal or recharge test;

(G) Information on the location, construction details, and primary usage (drinking water, process water, monitoring, etc.) of all wells within 500 feet of the waste treatment/disposal area;

(H) Degree of treatment (primary, secondary, tertiary);

(I) For industrial waste a complete chemical analysis of the typical wastewater to be discharged, may include but not limited to Total Organic Carbon, BOD, COD, Chlorides, Phosphorus, Ammonia, Nitrates, Total Nitrogen, Calcium, Sodium, Magnesium, Sodium Adsorption Ratio (SAR) Calculations, Phenol, Total Trihalomethanes, Toxicity test parameters, Total Volatile Organics, Total Coliforms and Total Dissolved Solids;

(J) proposed location and construction details of a monitoring well network;

(K) Any additional information required by the Director in order to adequately evaluate the disposal facility.

(6) For land application of residuals on other than dedicated sites:

(A) a map of the site with topographic contour intervals not exceeding ten feet or 25 percent of total site relief, whichever is less, and showing all facility related structures within the treatment, storage and land application areas and the location of all wells, pits and quarries, springs, lakes, ponds, or other surface drainage features within 500 feet of the utilization/disposal site;

(B) a soil scientist's recommendations, or the recommendations of an individual with at least three years experience in the comprehensive evaluation of soils for application of residuals, concerning application rates of liquids, solids, minerals and other wastewater constituents;

(C) a project evaluation conducted by an agronomist including recommendations concerning cover crops and their ability to accept the proposed application rates of liquids, solids, minerals, and other wastewater constituents;

(D) project description for the land application system, including treatment, storage, land application method, equipment, and a receiver management plan;

(E) for industrial wastes, a complete chemical analysis of the typical wastewater or residuals to be applied may include, but is not limited to percent Total Solids, pH, Ammonia, Nitrates, TKN, Total Phosphorus, Potassium, Toxicity test parameters, Cadmium, Chromium, Copper, Lead, Nickel, Zinc, Mercury, Arsenic, Selenium, Calcium, Sodium, Magnesium and Sodium Adsorption Ration (SAR) Calculations;

(F) information on the location, construction details, and primary usage (drinking water, process

water, monitoring, etc.) of all wells within 500 feet of the disposal site;

(G) For sites previously permitted: Soil evaluation of the application sites by a soil scientist, or an individual with at least three years experience in the comprehensive evaluation of soils for application of residuals, to confirm or establish the soil map through field evaluation of soil texture; color; structure; the depth, thickness, and type of restrictive horizons; the presence or absence of seasonal high water table within three vertical feet of the surface or subsurface application depth; pH; and cation exchange capacity;

(H) For sites not previously permitted:

(i) A USDA-SCS soils map of the application site. In addition, a soil evaluation of the application site by a Soil Scientist, or an individual with at least three years experience in the comprehensive evaluation of soils for application of residuals, which includes the soil evaluation and verification of the presence or absence of a seasonally high water table or bedrock within three vertical feet of the deepest point of residual application; and cation exchange capacity;

(ii) If a USDA-SCS soils map of the application site is not available, soil evaluation of the disposal site by a soil scientist, or an individual with at least three years experience in the comprehensive evaluation of soils for application of residuals, down to a depth of seven feet or the "C" horizon, whichever is less, to develop a soil map through field evaluation of soil texture; color; the depth, thickness, and type of restrictive horizons; the presence of absence of a seasonal high water table, or bedrock within three vertical feet of the deepest point of residual application; pH; and cation exchange capacity.

(I) For sites which are to receive residuals from one or more source, specific areas shall be designated and utilized to receive residuals from each municipal, regional or industrial source. Residuals from more than one facility under common ownership may be considered as a single source.

(J) Sites will only be permitted in water supply watersheds when allowed by 15A NCAC 2B .0200.

(7) For spray irrigation, land application of residuals on dedicated sites, or residual disposal/utilization systems and treatment works, except for rapid infiltration disposal systems and systems for composting residual for land application:

(A) a map of the site, with topographic contour intervals not exceeding ten feet or 25 percent of total site relief, whichever is less, and showing all facility-related structures and fences within the treatment, storage and land application areas, all test auger borings or inspection pits and the location of all wells, pits and quarries, springs, lakes, ponds, or other surface drainage features within 500 feet of the waste treatment/disposal site(s);

(B) the information specified in Subsections (d) (5) (E), (F), (H) and (I) of this Rule;

(C) soil evaluation of the disposal site conducted by a soils scientist to adequately evaluate the soils to be utilized for treatment and disposal down to a depth of seven feet to include, but is not limited to field descriptions of texture; color; structure; the depth; thickness and type of restrictive horizons; the presence or absence and depth of evidence of any seasonal high water table; recommendations concerning application rates of liquids, solids, and other wastewater constituents; field estimates or measurements of saturated hydraulic conductivity in the most restrictive horizon; and cation exchange capacity. Applicants may be required to dig pits when necessary for proper evaluation of the soils at the site.

(D) a project evaluation and a receiver site management plan (if applicable) prepared by an agronomist and his recommendations concerning cover crops and their ability to accept the proposed application rates of liquid, solids, minerals and other constituents of the wastewater;

(E) complete plans and specifications for the entire system, including treatment, storage, application, and disposal facilities and equipment. Treatment works previously permitted will not need to be shown, unless they are directly tied into the new units or are critical to the understanding of the complete process;

(F) a complete chemical analysis of the typical wastewater or residual to be treated, may include but not limited to Percent Total Solids, pH, Total Organic Carbon, BOD, COD, Ammonia, Nitrates, TKN, Chlorides, Sodium, Phosphorus, Sulfides, Bicarbonate, Magnesium, Calcium, Nitrates, Phenol, Total Trihalomethanes, Toxicity test parameters, Total Volatile Organic Compounds, Total Coliforms and Total Dissolved Solids;

(G) proposed location and construction details of a monitoring well network;
(H) information on the location, construction details, and primary usage (drinking water, process water, monitoring, etc.) of all wells within the 500 feet of the disposal site.
(I) for sites which are to receive residuals from more than one source, specific areas shall be designated and utilized to receive residuals from each municipal, regional and industrial source. Residuals from more than one facility under common ownership may be considered as a single source.
(J) sites will only be permitted in water supply watersheds when allowed by 15A NCAC 2B .0200. Residuals from more than one facility under common ownership may be considered as a single source.

(8) For systems for composting and chemically or otherwise stabilizing residuals for land application which meet PFRP requirements or EPA's criteria for a Class A residual as defined in 40 CFR 503:
(A) a map of the processing site, with topographic contour intervals not exceeding 10 feet or 25 percent of total site relief, whichever is less, and showing all facility-related structures within the property boundary and the location of all wells, springs, lakes, ponds, or other surface drainage features within 500 feet of the principal waste treatment/disposal site(s);
(B) complete plans and specifications for the entire system, including facilities and equipment for treatment, storage and preparation for disposal/utilization, as well as a detailed description of the process to be utilized;
(C) for industrial waste, a hydrogeologic description of the subsurface, to a depth of 20 feet or bedrock, whichever is less. The number of borings shall be sufficient to define the following for the area underlying each major soil type at the disposal site:
(i) significant changes in lithology underlying the site;
(ii) the vertical permeability of the unsaturated zone and the hydraulic conductivity of the saturated zone; and
(iii) depth to the mean seasonal high water table (if definable from soil morphology or from evaluation of other applicable available data);
(D) proposed location and construction details of a monitoring well network.
(E) a detailed marketing and distribution plan;
(F) a copy of proposed usage guidance to be distributed with the residuals;
(G) if the residuals are to be packaged, a copy of the proposed label to be used;
(H) a detailed description of the proposed record keeping system to be used to track the distribution and usage of the residuals;
(I) projects for the land application of compost and chemically or otherwise stabilized residuals that are generated in North Carolina or shipped into North Carolina in bulk form and then distributed in bulk form will be required to obtain nondischarge permits from the Division of Environmental Management. Land application site permitting will not be required unless the applicant fails to demonstrate to the satisfaction of the Director that the proposed method of distribution and marketing and other controls are adequate to control the use of the material in a manner that will not result in the contravention of water or groundwater standards.

(9) For closed system or recycle disposal systems and treatment works:
(A) for industrial waste, a complete chemical analysis of the typical wastewater or residual to be treated, may include but not limited to Total Organic Carbon, BOD, COD, Chlorides, Phosphorus, Nitrates, Phenol, Total Trihalomethanes, Toxicity test parameters, Total Volatile Organic Compounds, Total Coliforms, Metals and Total Dissolved Solids;
(B) plans and specifications of the entire system. When necessary for an understanding of a treatment process, the applicant should also submit process flow diagrams, manufacturers specifications and historical operational data from comparable facilities;
(C) For industrial waste, a hydrogeologic description of the subsurface to a depth of 20 feet or bedrock, whichever is less. The number of borings shall be sufficient to define the following for the area underlying each major soil type at the disposal site:
(i) significant changes in lithology underlying the site;
(ii) the vertical permeability of the unsaturated zone and the hydraulic conductivity of the saturated zone; and
(iii) depth to the mean seasonal high water table (if definable from soil morphology or from

evaluation of other applicable available data).

(10) For rapid infiltration systems:

(A) a map of the site, with a horizontal scale of one inch equal 1,000 feet or less and topographic contour intervals not exceeding two feet or 25 percent of the total site relief, whichever is less, and showing all facility-related structures and fences within the property boundary, all test auger borings or inspection pits and the location of all wells, springs, lakes, ponds or other surface drainage features within 500 feet of the principal waste treatment/disposal site(s);

(B) hydrogeological information describing the vertical and horizontal extent and lithologic character of the unconfined aquifer and its hydraulic relationship to the first confined aquifer beneath the site and the vertical permeability and thickness of the confining bed. The information must also include a determination of the transmissivity and specific yield of the unconfined aquifer, determined by either a withdrawal or recharge test;

(C) a determination of the quality and movement of groundwater and surface water in the area and an evaluation of the impact that the proposed system will have on water levels, movement and quality of waters;

(D) complete plans and specifications for the entire system, including treatment storage and rotary distributor facilities and equipment;

(E) the information specified in Rule .0205 (d) (5) (H) of this Section;

(F) proposed location and construction details of monitoring well network;

(G) proposed monitoring plan including the method of determining groundwater levels and quality of water parameters and frequency of sampling.

(11) For land application of agricultural products and processing residues on other than dedicated sites or animal waste management systems not deemed permitted under Rule .0217 of this Section:

(A) a map of the site with topographic contour intervals not exceeding 10 feet or 25 percent of total site relief, whichever is less, and showing all facility related structures and fences within the property boundary, all test auger borings or inspection pits and the location of all wells, pits and quarries, springs, lakes, ponds, or other surface drainage features within 500 feet of the application site;

(B) a soil scientist's recommendations, or the recommendations of an individual with at least three years experience in the comprehensive evaluation of soils for application of residuals, concerning application rates of liquids, solids, minerals and other wastewater constituents;

(C) a project evaluation conducted by an agronomist including recommendations concerning cover crops and their ability to accept the proposed application rates of liquids, solids, minerals, and other residual constituents;

(D) project description for the land application system, including treatment, storage, land application method, equipment and a receiver management plan;

(E) a complete chemical analysis of the typical residue to be applied may include, but is not limited to percent Total Solids, pH, Ammonia, Nitrates, TKN, Total Phosphorus, Potassium, Calcium, Sodium, Magnesium, Toxicity test parameters, Cadmium, Chromium, Copper, Lead, Nickel, Zinc, Mercury, Arsenic, Selenium;

(F) information on the location, construction details, and primary usage (drinking water, process water, monitoring, etc.) of all wells within 500 feet of the application site;

(G) for sites previously permitted: Soil evaluation of the application sites by a Soil Scientist, or an individual with at least three years experience in the comprehensive evaluation of soils for application of residuals to confirm or establish the soil map through field evaluation of soil texture; color; structure; the depth, thickness, and type of restrictive horizons; the presence or absence of seasonal high water table within three vertical feet of the surface or subsurface application depth; pH; and cation exchange capacity;

(H) for sites not previously permitted:

(i) a USDA-SCS soils map of the application site. In addition, a soil evaluation of the application site by a Soil Scientist, or an individual with at least three years experience in the comprehensive evaluation of soils for application of residuals, which includes the soil evaluation and verification of the presence or absence of a seasonally high water table or bedrock within three vertical feet of the deepest point of residual application; pH; and cation exchange capacity;

(ii) if a USDA-SCS soils map of the application site is not available, soil evaluation of the disposal site by a Soil Scientist, or an individual with at least three years experience in the comprehensive evaluation of soils for application of residuals down to a depth of seven feet or the "C" horizon, whichever is less, to develop a soil map through field evaluation of soil texture; color; the depth, thickness, and type of restrictive horizons; the presence or absence of a seasonal high water table, or bedrock within three vertical feet of the deepest point of residual application; and cation exchange capacity.

(I) if Best Management Practices (BMPs) are developed for a specific residual and approved by the Director, they may be submitted as part of the application package. Depending on the material and the detail of the BMP, some of the information contained in Subparagraphs (d)(11)(A)-(H) of this Rule may not be required to be submitted as part of the application. Any item listed in Subparagraphs (d)(11)(A)-(H) that is not submitted as part of the application must be specifically addressed in the BMP. Each application will be evaluated individually and the Director reserves the right to determine that a specific residual has characteristics that do not allow it to be covered by all or part of a BMP.

(12) for Disposal or Treatment of Soils Containing Petroleum Product by Landfarming or Storage and Treatment in Containment Structures:

(A) for all applications:

(i) a complete chemical analysis of the typical petroleum contaminated soil to be remediated, including but not limited to, total petroleum hydrocarbons (TPH), semivolatile and volatile hydrocarbons (per U.S. EPA methods approved by the Division), pH, and heavy metals,

(ii) a determination of hazardous waste constituents using the Toxicity Characteristic Leaching Procedure (TCLP) described in 40 CFR 261.24. Any substance shall be considered a hazardous waste if the results of the TCLP analysis indicates concentrations of constituents greater than the federal regulatory level, unless documentation is provided stating that the petroleum contaminated soil is not a hazardous waste regulated under Subtitles C or D of RCRA. A TCLP analysis will be required for all permit applications to dispose of petroleum contaminated soil in accordance with the following criteria:

(I) if the source of the soil contamination is a virgin (unused) petroleum product, from an underground storage tank regulated under Subtitle I of RCRA, the contaminated soil shall not be considered a hazardous waste and no TCLP analysis, is required. In lieu of the TCLP analysis certification of soil contamination from a virgin petroleum product will be required,

(II) if an analysis of the source of petroleum product is submitted showing concentrations less than the regulatory level associated with the constituents of the TCLP analysis (Table II.2 of the Federal Register, Volume 55, No. 61), the contaminated soil shall not be considered a hazardous waste and no TCLP analysis will be required,

(III) for soils contaminated with used motor oil, the soils will be considered hazardous until proven otherwise by a TCLP analysis for metals only (EPA Hazardous Waste Nos. D004-D011),

(IV) for soils contaminated by waste oil, a TCLP analysis for all constituents in Table II.2 of the Federal Register, Volume 55, No. 61, with the exception of pesticides and herbicides, shall be required,

(V) for soils contaminated with petroleum products not regulated under Subtitle I of RCRA (excluding used motor and waste oils), the soils will be considered hazardous until proven otherwise by procedures specified by the Department.

(iii) a scaled map of the site, with a horizontal scale of one inch equals 100 feet or less and topographic contour intervals not exceeding 10 feet or 25 percent of total site relief, whichever is less and showing:

(I) all property boundaries and all structures within the treatment, storage and land application areas,

(II) the location of all wells, springs, lakes, ponds, or other surface drainage features within 500 feet of the waste disposal site; and

(III) any residences or place of public assembly under separate ownership within 400 feet of the waste disposal site.

(iv) confirmation that an erosion control plan has been submitted to the Division of Land Quality or its designee, for disposal sites encompassing more than one (new law) acre,
(v) an indication of cover crop(s),
(vi) the volume of petroleum contaminated soil to be remediated,
(vii) landowners agreement to allow the use of the property for the purpose of remediating petroleum contaminated soil. The agreement is not required when the permit applicant is the sole landowner,

(B) for Soil Remediation at Minimum Rates:
(i) a calculation of the area required for landfarming using the maximum application thickness of one inch,
(ii) an indication of cover crop(s),

(C) for Soil Remediation at Conventional Rates (dedicated or non-dedicated sites):
(i) a soils evaluation report of the disposal area, conducted by a Soil Scientist, to adequately evaluate the soil to a depth of five feet. The Report shall include, but is not limited to:
(I) field descriptions of texture, color, and structure,
(II) depth and thickness of soil horizons,
(III) presence of any restrictive horizons,
(IV) depth to seasonal high water table,
(V) soil pH and cation exchange capacity, and
(VI) estimates of liming and fertilization requirements,
(ii) the calculation of the size of the disposal area, thickness of application, and proposed cover crop,
(iii) a site maintenance plan,
(iv) proposed groundwater quality monitor well network (dedicated sites only),

(D) Bioremediation and volatilization on impermeable surfaces:
(i) a soil evaluation of the disposal area conducted by a Soil Scientist to adequately evaluate the soil down to a depth of five feet to include but is not limited to, field descriptions of texture, color, structure, depth and thickness of soil horizons, presence of any restrictive horizons; and depth to seasonal high water table,
(ii) the plans and specifications of the soil contaminant vessel and any associated leachate collection system, including the operating thickness of the soil to be contained and treated,
(iii) a description of the chemical or biological additives used in treating the contaminated soil,

(E) containment and utilization at brick, asphalt, or other production facilities, a site management plan, consisting of a complete description of all operational procedures related to the handling of soils containing petroleum product at the proposed facility, including the following items:
(i) a description of the staging area(s) designated for initial receipts of the petroleum contaminated soils,
(ii) the method of emplacement of the soils in the containment area(s),
(iii) the average residence time of the soils in the containment area,
(iv) the method of incorporation of the soils into the production facilities product materials,
(v) the method of containment and disposal of any leachate or runoff resulting from the containment and storage of petroleum contaminated soils,

(F) for Soil Remediation Using Mobile or Portable Self-Contained Facilities:
(i) a description of the treatment system to include procedures for controlling any vapors, liquid or solid by-products of the treatment process,
(ii) the method by which any by-products will be disposed,
(iii) the predicted average concentration of petroleum contaminants in the untreated soil, as determined by sampling procedures and analytical methods approved by the Department,
(iv) the sampling procedures and analytical methods by which the concentration(s) and type(s) of contaminants in the treated soil will be determined,
(v) the method of disposal of the treated soil,

(13) Pump and Haul Permits:
(A) Pump and Haul Permits are not acceptable long term domestic wastewater treatment alternatives. Permits will only be issued to facilities under the authority of the Division of Environmental Management in cases of environmental emergencies, nuisance conditions, health problems or

other unique situations. These permits will only be issued for a period of no more than six months unless the Director determines that conditions are such that the final waste management options cannot be implemented within six months,

(B) Pump and Haul Permits for nondomestic wastewater will be considered on a case by case basis and will only be issued in cases when it can be demonstrated to the satisfaction of the Director that no other environmentally superior alternative is reasonably available. Individual pump and haul permits are not required for the transport of animal waste from animal waste management systems permitted under Rule .0217 of this Section.

History Note: Statutory Authority G.S. 143-215.1; 143-215.3(a); 143-215.3B(b);
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1990; August 1, 1988; October 1, 1987.

.0206 SUBMISSION OF PERMIT APPLICATIONS

(a) Permit applications, supporting information, and processing fee for permits issued by the Division shall be filed with the Director, Division of Environmental Management, Department of Environment, Health, and Natural Resources, Post Office Box 29535, Raleigh, North Carolina, 27626-0535. Applications for soil remediation projects, on other than dedicated sites, shall be submitted to the appropriate DEM regional office. Applications for permits from local sewer system programs shall be submitted directly to the local program director. The Division shall not require permit processing fees for permits issued by local sewer system programs.

(b) Permit applications shall be signed as follows:

(1) in the case of corporations, by a principal executive officer of at least the level of vice-president, or his duly authorized representative;

(2) in the case of a partnership, by a general partner and in the case of a limited partnership, by a general partner;

(3) in the case of a sole proprietorship, by the proprietor;

(4) in the case of a municipal, state, or other public entity by either a principal executive officer, ranking elected official or other duly authorized employee.

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.1;
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1987; February 1, 1986; January 1, 1984.

.0207 SUBMISSION OF PERMIT APPLICATION

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.1(d); 143-215.3(a)(4);
Eff. February 1, 1976;
Repealed Eff. February 1, 1986.

.0208 STAFF REVIEW AND PERMIT PREPARATION

(a) The staff of the permitting agency shall conduct a review of plans, specifications and other project data accompanying the application and shall determine if the application and required information are complete. The staff shall acknowledge receipt of a complete application. The local government unit or units having jurisdiction over specific residential projects shall be notified of permit applications in accordance with G.S. 143-215.1 (d1).

(b) If the application is not complete with all required information, the application will be returned to the applicant. The staff shall advise the applicant by mail:

(1) how the application or accompanying supporting information may be modified to make them acceptable or complete;

(2) that the 90 day processing period required in G.S. 143-215.1 and Rule .0209 of this Section begins upon receipt of corrected or complete application with required supporting information.

(c) Pursuant to G.S. 143-215.67(a), the staff of the Division shall determine for sewer system construction or sewer system extensions, whether the treatment works or the sewer system to which the proposed system will discharge is adequate to receive waste which will be discharged from the proposed system.

(d) For treatment works and disposal systems, the staff shall make a site-specific evaluation to determine the potential impacts of the proposed project on surface and ground water quality.

(e) If an application is accepted and later found to be incomplete, the applicant will be advised how the application or accompanying supporting information may be modified to make them acceptable or complete, and that if all required information is not submitted within 30 days that the project will be returned as incomplete.

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.1(b); 143-215.1(d); 143-215.3(a)(4); Eff. February 1, 1976; Amended Eff. February 1, 1993; August 1, 1988; October 1, 1987; February 1, 1986.

.0209 FINAL ACTION ON PERMIT APPLICATIONS TO THE DIVISION

(a) The Director shall take final action on all applications not later than 90 days following receipt of a complete application and with required information. All permits or renewals of permits and decisions denying permits or renewals shall be in writing.

(b) The Director is authorized to:

(1) issue a permit containing such conditions as are necessary to effectuate the purposes of Article 21, Chapter 143, N.C. General Statutes;

(2) issue permit containing time schedules for achieving compliance with applicable effluent standards and limitations, water quality standards and other legally applicable requirements;

(3) deny a permit application where necessary to effectuate:

(A) the purposes of Article 21, Chapter 143;

(B) the purposes of G.S. 143-215.67(a);

(C) rules on coastal waste treatment, disposal, found in Section .0400 of this Subchapter;

(D) rules on "subsurface disposal systems," found in 15A NCAC 18A .1900. Copies of these rules are available from the Division of Environmental Health, P. O. Box 29535, Raleigh, North Carolina 27626-0535.

(E) rules on groundwater quality standards found in Subchapter 2L of this Chapter.

(4) hold public meetings when necessary to obtain additional information needed to complete the review of the application. The application will be considered as incomplete until the close of the meeting record.

(c) If a permit is denied, the letter of denial shall state the reason(s) for denial and any reasonable measures which the applicant may take to make the application approvable.

(d) Permits shall be issued or renewed for a period of time deemed reasonable by the Director.

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.1(a); 143-215.1(b); 143-215.1(d); Eff. February 1, 1976; Amended Eff. February 1, 1993; October 1, 1987.

.0210 NOTIFICATION OF APPLICANTS

History Note: Statutory Authority G.S. 143-215.1(a); 143-215.3(a)(4); Eff. February 1, 1976; Repealed Eff. October 1, 1987.

.0211 PERMIT RENEWALS

Requests for permit renewals are to be submitted to the Director at least 180 days prior to expiration unless revoked in accordance with Rule .0213 of this Section. Such requests must be submitted with a processing fee as shown in Rule .0205(c)(5) of this Section, in the form of a check or money order made payable to the N. C. Department of Environment, Health, and Natural Resources. Renewal requests received less than 180 days prior to permit expiration will be required to pay the new application/modification/late renewal fee rather than the timely renewal without modification fee. All applications are incomplete until required processing fees are received, and may be returned to the applicant. The processing fee shall not apply to any farmer who submits an application which pertains to his farming operation.

History Note: Statutory Authority G.S. 143-215.3(e)(1);
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1990; October 1, 1987; January 1, 1984.

.0212 ADMINISTRATIVE HEARINGS

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.4; 143-215.1(e);
Eff. February 1, 1976;
Amended Eff. October 1, 1987;
Repealed Eff. August 1, 1988.

.0213 MODIFICATION AND REVOCATION OF PERMITS

Any permit issued by the Division pursuant to these Rules is subject to revocation, or modification upon 60 days notice by the Director in whole or part for good cause including but not limited to:

(1) violation of any terms or conditions of the permit;
(2) obtaining a permit by misrepresentation or failure to disclose fully all relevant facts;
(3) refusal of the permittee to allow authorized employees of the Department of Environment, Health, and Natural Resources upon presentation of credentials:
  (a) to enter upon permittee's premises on which a system is located in which any records are required to be kept under terms and conditions of the permit;
  (b) to have access to any copy and records required to be kept under terms and conditions of the permit;
  (c) to inspect any monitoring equipment or method required in the permit; or
  (d) to sample any discharge of pollutants.
(4) failure to pay the annual fee for administering and compliance monitoring.

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.1(b)(2);
Eff. February 1, 1976;
Amended Eff. February 1, 1993; August 1, 1988; October 1, 1987; November 1, 1978.

.0214 INVESTIGATIONS: MONITORING AND REPORTING

History Note: Statutory Authority G.S. 143-215.3(a); 143-215.1(b);
Eff. February 1, 1976;
Amended Eff. November 1, 1978;
Repealed Eff. October 1, 1987.

.0215 DELEGATION OF AUTHORITY

For permits issued by the Division, the Director is authorized to delegate any or all of the functions contained in these Rules except the following:

(1) denial of a permit application;
(2) revocation of a permit not requested by the permittee,
(3) modification of a permit not requested by the permittee.

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.3(a)(4);
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1987; February 1, 1986.

.0216 LIMITATION ON DELEGATION

History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.9(d); 143-215.3(a)(4);
Eff. February 1, 1976;
Repealed Eff. February 1, 1986.

.0217 PERMITTING BY REGULATION

(a) The following nondischarge facilities are deemed to be permitted pursuant to G.S. 143-215.1(d) and it shall not be necessary for the Division to issue individual permits for construction or operation of the following facilities:

(1) Animal waste management systems for which waste does not reach the surface waters by runoff, drift, direct application or direct discharge during operation or land application and which meet the following criteria:

(A) Systems which are designed for, and actually serve, less than the following number of animals and all other systems not specifically mentioned in this Rule:

100 head of cattle
75 horses
250 swine
1,000 sheep
30,000 birds with a liquid waste system

Although these systems are not required to obtain an approved animal waste management plan, animal waste treatment and storage facilities such as, but not limited to, lagoons, ponds, and drystacks which are designed and constructed to serve new, upgraded or expanded facilities under these size criteria are encouraged to meet the same minimum standards and specifications as required for an approved animal waste management plan. Systems that are determined to have an adverse impact on water quality may be required to obtain an approved animal waste management plan or to apply for and receive an individual nondischarge permit from DEM.

(B) Poultry operations which use a dry litter system if records are maintained for one year which include the dates the litter was removed, the estimated amount of litter removed and the location of the sites where the litter was land applied by the poultry operation, the waste is applied at no greater than agronomic rates and if litter is stockpiled not closed than 100 feet from perennial waters as indicated on the most recent published version of U.S.G.S. 1:24.000 (7.5 minute) scale topographic maps and other waters as determined by the local soil and water conservation district. If a third party applicators is used, records must be maintained of the name, address and phone number of the third party applicator.

(C) Land application sites under separate ownership from the waste generator, receiving animal waste from feedlots which is applied by either the generator or a third party applicator, when all the following conditions are met:

(i) the waste is applied at no greater than agronomic rates;

(ii) a vegetative buffer (separation) of at least 25 feet is maintained from perennial waters as indicated on the most recent published version of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps and other waters as determined by the local soil and water conservation district, if a wet waste application system is used.

(D) Existing animal waste management systems serving equal to or greater than the number of animals as listed in Part (a)(1)(A) of this Rule until December 31, 1997. In addition, a registration form for the system must be submitted to DEM on forms supplied or approved by DEM pursuant to Paragraph (c) of this Rule. Systems that are determined to have an adverse impact on water quality may be required to obtain an approved animal waste management plan or to apply for and receive an individual nondischarge permit from DEM.

(E) Existing animal waste management systems serving equal to or greater than the number of animal as listed in Part (a)(1)(A) of this Rule, which have an approved animal waste management plan by December 31, 1997. Systems that do not have an approved animal waste management plan or are determined to have an adverse impact on water quality may be required to apply for and receive an individual nondischarge permit from DEM.

(F) New and expanded animal waste management systems serving equal to or greater than the number of animals listed in Part (a)(1)(A) of this Rule which are placed in operation during the period from the effective date of this Rule through December 31, 1993 and which submitted a registration form for the system to DEM on forms supplied or approved by DEM. Systems that are determined to have an adverse impact on water quality may be required to obtain an approved animal waste management plan or to apply for and receive an individual nondischarge permit

]from DEM.

(G) New and expanded animal waste management systems serving equal to or greater than the number of animals listed in Part (a)(1)(A) of this Rule, which have an approved animal waste management plan after December 31, 1993.

(H) For the purpose of this Rule, the procedures for the development of an approved animal waste management plan shall be as follows:

(i) The animal waste management practices or combination of practices which are selected to comprise a plan for a specific feedlot must meet the minimum standards and specifications of the U.S. Department of Agriculture - Soil Conservation Service contained in the Field Office Technical Guide or the standard of practices adopted by the Soil and Water commission or standards for any combination of practices which provide water quality protection and are approved by one of these two agencies.

(ii) Plans must be certified by any technical specialist designated pursuant to rules adopted by the Soil and Water Conservation Commission and the certificate submitted to the DEM central office on forms approved or supplied by DEM. The technical specialist must certify that the best management practices which comprise the plan meet the applicable minimum standards and specifications. Should the Soil and Water Conservation Commission fail to adopt rules to implement the provisions of this Rule within 12 months of its effective date, all animal waste management systems that would have been required to obtain an approved animal waste management plan must apply for and receive an individual nondischarge permit from the Division of Environmental Management.

(iii) The land application buffers must meet the conditions established in Subpart (a)(1)(C)(ii) of this Rule.

(iv) The waste shall not be applied at greater than agronomic rates.

(v) For new or expanded animal waste management systems requiring a plan, plan approval must include an on-site inspection to confirm that animal waste storage and treatment structures such as but not limited to lagoons and ponds have been designed and constructed to meet the appropriate minimum standards and specifications.

(vi) New and expanded animal waste storage and treatment facilities such as but not limited to lagoons and ponds shall be located at least 100 feet from perennial waters as indicated on the most recent published version of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps and other waters as determined by the local soil and water conservation district. This buffer requirement shall also apply to areas where an established vegetative cover will not be maintained because of the concentration of animals, with the exception of stream crossings. Animal waste storage/treatment facilities and animal concentration areas will be exempt from the minimum buffer requirements if it can be documented that no practicable alternative exists and that equivalent controls are used as approved by the Soil and Water Conservation Commission.

(vii) For new facilities, an animal waste management plan must be approved before animals are initially stocked. For an expanded facility, an animal waste management plan must be approved before the additional animals are stocked. New and expanded systems may be constructed in phases as long as each phase meets the minimum criteria established in Subpart (a)(1)(H)(i) of this Rule.

(viii) For existing animal waste management systems, the animal waste management plan shall include only operational and maintenance standards and specifications in effect on the date of plan approval . Meeting minimum design and construction standards and specifications for existing animal waste storage and treatment structures, such as but not limited to lagoons and ponds, shall not be required for plan approval.

(ix) An approved plan for an existing animal waste management system may be amended at any time without submitting a new certification to DEM if the revision meets minimum standards and specifications and is approved by any technical specialist designated pursuant to Subpart (a)(1)(H)(ii) of this Rule.

(x) For animal waste management systems which use third party applicators, the plan must require a current record to be maintained for a period of one year which includes the name, address and phone number of the third party applicator, the date of removal of the animal

waste and the amount of waste removed.

(xi) An approved plan is not required to be approved again when revisions are made to the minimum standards and specifications, but such revision, as applicable, will be encouraged to be incorporated into the plan.

(xii) For each change in ownership of the feedlot, the new owner must notify DEM in writing within 60 days of transfer of ownership that the approved plan has been read and is understood and that all provisions of the plan will be implemented.

(xiii) A copy of the approved plan, the signed certification form and any approved revisions to the plan shall be maintained by the operator.

(2) Treatment works and disposal systems for solid waste disposal sites and composting facilities for solid waste, residuals or residues approved in accordance with the rules of the Commission for Health Services if the Commission for Health Services has received the written concurrence of the Director. The term solid waste is used as defined in G.S. 130A-290 and includes hazardous waste.

(3) Any building sewer documented by the local building inspector to be in compliance with the N.C. State Plumbing Code.

(4) Sites permitted under the authority of the Commission for Health Services for the disposal/utilization of residuals/septage.

(5) Individual land application sites receiving compost or other stabilized residuals that are demonstrated as being nonhazardous and nontoxic, meet EPA's criteria for PFRP or Class A residuals as defined in 40 CFR 503, are registered by the North Carolina Department of Agriculture as a commercial fertilizer/soil amendment, are utilized at agronomic rates and are sold and used exclusively in bag form. No distinction will be made as to whether the material is bagged in North Carolina or shipped into the state already bagged.

(6) Storage sites for petroleum contaminated soils that are utilized for less than 45 days, storage is on 10 mil or thicker plastic, provisions are made for containing potential leachate and runoff and approval of the activity has been receiving from the appropriate DEM Regional Supervisor or his designee.

(7) Land application sites for petroleum contaminated soils with volumes of soil from each source of less than or equal to 50 cubic yards and approval of the activity has been received from the appropriate DEM Regional Supervisor or his designee.

(8) Swimming Pool filter backwash and pool drainage that is discharged to the land surface.

(9) Drilling muds, cuttings and well water from the development of wells.

(10) Composting facilities for dead animals, if the facilities are constructed and operated in accordance with guidelines approved by the North Carolina Department of Agriculture, are constructed on an impervious, weight-bearing foundation, operated under a roof and are approved by the State Veterinarian.

(11) Operations that involve routine maintenance or the rehabilitation of existing sewer lines. In situations where existing sewer lines are undergoing routine maintenance, the existing sewer lines are being rehabilitated by constructing or installing replacement sewers, or the existing sewer lines are being refurbished by the installation of some type of sealant or sleeve inside the existing sewer line, a specific nondischarge permit is not required. These operations will be deemed to be permitted as long as all construction and installation conforms to the design criteria of the Division pursuant to Rule .0219 of this Section, as long as new sources of wastewater flow are not being connected to the rehabilitated sewers, and as long as all replacements or newly constructed sewers are located in the same proximity (same general horizontal and vertical alignment) as the existing sewers. If any of the criteria in this Paragraph are not being adhered to, a site specific permit must be requested by the applicant. Additionally, once the maintenance or rehabilitation activities are completed, a North Carolina Professional Engineer's certification (form provided by the Division) must be submitted to the appropriate Regional Supervisor for the completed work.

(b) The Director however may on a case by case basis determine that a facility should not be deemed to be permitted in accordance with this Rule and be required to obtain individual nondischarge permits. This determination will be made based on existing or projected environmental impacts.

(c) All existing, new or expanding animal waste management systems serving equal to or greater than the number of animals as listed in Part (a)(1)(A) of this Rule must submit a registration form for the system to DEM. Failure to register on or before December 31, 1993, shall result in an appropriate enforcement action

being initiated or the facility being required to apply for and receive an individual nondischarge permit. Penalties assessed may be based on any one or a combination of the factors as established in G.S. 143B-282.1(b) and commensurate with actual or potential environmental damage.

(d) Failure to obtain approval of a management plan as required by the dates specified in Paragraph (a)(1) of this Rule or failure to follow an approved animal waste management plan shall result in appropriate enforcement actions being initiated or the facility being required to apply for and receive an individual nondischarge permit. Penalties assessed may be based on any one or a combination of the factors as established in G.S. 143B-282.1(b) and commensurate with actual or potential environmental damage.

(e) The Secretary of Environment, Health, and Natural Resources is delegated the authority to assess fines and penalties for the willful discharge of animal waste from animal or poultry feeding operations pursuant to N.C. General Statutes 143-215(e).

(f) Nothing in this Rule shall be deemed to allow the violation of any assigned surface water, groundwater, or air quality standards, and in addition any such violation shall be considered a violation of a condition of a permit. Further, nothing in this Rule shall be deemed to apply to or permit activities for which a state/NPDES permit is otherwise required. The term NPDES means National Pollutant Discharge Elimination System.

History Note: Statutory Authority G.S. 130A-300; 143-215.1(a)(1); 143-215.3(a),(d);
Eff. February 1, 1976;
Amended Eff. February 1, 1993; December 1, 1984.

.0218 LOCAL PROGRAMS FOR SEWER SYSTEMS

(a) Jurisdiction. Municipalities, counties, local boards or commissions, water and sewer authorities, or groups of municipalities and counties may apply to the Commission for approval of programs for permitting construction, modification, and operation of public and private sewer systems in their utility service areas. Permits issued by approved local programs serve in place of permits issued by the Division.

(b) Applications. Applications for approval of local sewer system programs must provide adequate information to assure compliance with the requirements of G.S. 143-215.1(f) and the following requirements:

(1) Applications for local sewer system programs shall be submitted to the Director, Division of Environmental Management, Department of Environment, Health, and Natural Resources, P. O. Box 29535, Raleigh, North Carolina, 27626-0535.

(2) The program application shall include copies of permit application forms, permit forms, minimum design criteria, and other relevant documents to be used in administering the local program.

(3) An attorney representing the local unit of government submitting the application must certify that the local authorities for processing permit applications, setting permit requirements, enforcement, and penalties are compatible with those for permits issued by the Division.

(4) If the treatment and disposal system receiving the waste is under the jurisdiction of another local unit of government, then the program application must contain a written statement from that local unit of government that the proposed program complies with all its requirements and that the applicant has entered into a satisfactory contract which assures continued compliance.

(5) Any future amendments to the requirements of this Section shall be incorporated into the local sewer system program within 60 days of the effective date of the amendments.

(6) A professional engineer licensed to practice in this state shall be on the staff of the local sewer system program or retained as a consultant to review unusual situations or designs and to answer questions that arise in the review of proposed projects.

(7) Each project permitted by the local sewer system program shall be inspected for compliance with the requirements of the local program at least once during construction.

(8) A copy of each permit issued by the local sewer system program shall be sent to the regional office of the Division and another copy sent to the central office of the Division in Raleigh. Copies of the approved plans must also be submitted upon request by the Division.

(9) A semi-annually report shall be submitted to the Director with a copy to the appropriate DEM Regional Office, listing for each local permit issued during the quarter the name of the person receiving the permit, the permit number, the treatment facility receiving the waste, and the design flow and the type of waste for sewer system extensions or changes. The report shall also provide a listing and summary of all enforcement actions taken or pending during the quarter. The quarters

begin on January 1, April 1, July 1, and October 1, and the report shall be submitted within 30 days after the end of each period.

(c) Approval of Local Programs. The staff of the division shall acknowledge in writing receipt of an application for a local sewer system program, review the application, notify the applicant of additional information that may be required, and make a recommendation to the Commission on the acceptability of the proposed local program. Final action on the proposed local program shall be made by the Commission within 180 days of receiving a complete application.

(d) Adequacy of Receiving Facilities. Local sewer system programs shall not issue a permit for a sewer project which would increase the flow or change the characteristics of waste to a treatment works or sewer system unless the local program has received a written determination from the Division that, pursuant to G.S. 143-215.67(a), the treatment works or sewer system is adequate to receive the waste. The Division staff may, when appropriate, provide one written determination that covers all local permits for domestic sewage sewer projects with total increased flow to a particular treatment works less than a specified amount and which are issued within a specified period of time not to exceed 60 days. In no case shall the local sewer system program issue a permit for additional wastewater if the receiving wastewater treatment is in noncompliance with its Division issued permit unless the additional flow is allowed as part of a special order or judicial order.

(e) Modification of a Local Program. After a local sewer system program has been approved by the Commission, any modification of the program procedures or requirements specified in Paragraph (a) of this Rule must be approved by the Commission to assure that the procedures and requirements remain at least as stringent as the state-wide requirements of the Commission.

(f) Appeal of Local Decisions. Appeal of individual permit denials or issuance with conditions the permit applicant finds unacceptable shall be made to the local program authority or to an appropriate judicial level. The Commission will not consider individual permit denials or issuance with conditions to which the permittee objects. This Paragraph does not alter the enforcement authority of the commission as specified in G.S. 143-215.1(f).

(g) The Division shall maintain a list of all local units of government with approved local sewer system programs and make copies of the list available to the public upon request and payment of any reasonable costs for reproduction. The list can be obtained from: Permitting and Engineering Unit Supervisor, Division of Environmental Management, Water Quality Section, P. O. Box 29535, Raleigh, North Carolina, 27626-0535.

History Note: Statutory Authority G.S. 143-215.1; 143-215.3(a)(1);
Eff. February 1, 1986;
Amended Eff. February 1, 1993; October 1, 1987.

.0219 MINIMUM DESIGN REQUIREMENTS

(a) All facilities requiring a permit pursuant to this Section shall be designed following good engineering practice. The plans and specifications for all projects must be sealed by a Professional Engineer The only exceptions from the Professional Engineer requirement are those allowed in Rule .0205(d)(1)(A)(iii) of this Section.

(b) Waste, including treated waste, shall not be placed directly into, or in contact with, GA classified groundwater unless such placement will not result in a contravention of GA groundwater standards, as demonstrated by predictive calculations or modeling methods acceptable to the Director.

(c) Impoundments, trenches or other excavations made for the purpose of storing or treating waste will not be excavated into bedrock unless the placement of waste into such excavations will not result in a contravention of assigned standards, as demonstrated by predictive calculations or modeling methods acceptable to the Director.

(d) The bottoms of earthen impoundments, trenches or other similar excavations with the exception of nitrification fields, infiltration systems, and sewer line excavations shall be at least four feet above the bedrock surface, except that the bottom of excavations which are less than four feet above bedrock shall have a liner with a hydraulic conductivity no greater than 1 x 10-7 centimeters per second. Liner thickness will be that thickness necessary to achieve a leakage rate consistent with the sensitivity of classified groundwaters. Separation distances or liner requirements may be reduced if it can be demonstrated by predictive calculations or modeling methods acceptable to the Director, that construction and use of these treatment and disposal units will not result in contravention of assigned standards.

(e) Waste shall not be applied or discharged onto or below the land surface when the vertical separation

between the waste and the seasonal high water table is less than one foot. If the area is to be utilized for industrial waste and has a separation of less than three feet, and in other areas as designated by the Director, a demonstration must be made using predictive calculations or modeling methods, acceptable to the Director, that such placement will not result in contravention of classified groundwater standards.

(f) Treatment works and disposal systems utilizing earthen basins, lagoons, ponds or trenches, excluding nitrification fields, infiltration systems, and holding ponds containing non-industrial treated effluent prior to spray irrigation, for treatment, storage or disposal shall have either a liner of natural material at least one foot in thickness and having a hydraulic conductivity of no greater than 1 x 10-6 centimeters per second when compacted, or a synthetic liner of sufficient thickness to exhibit structural integrity and an effective hydraulic conductivity no greater than that of the natural material liner.

(g) Except as otherwise provided by these requirements or by terms of a permit, all waste treatment, storage and disposal facilities must maintain and operate a groundwater monitoring system as approved by the Division. The monitoring system must be designed to assess the impact of any discharge on the quality of the underlying groundwaters and must be based on the results of the hydrogeologic investigation.

(h) For pumping stations:

(1) no by-pass or overflow lines;

(2) multiple pumps shall be provided capable of pumping at a rate of 2.5 times the average daily flow rate with any one pump out of service. Pump-on/Pump-off elevations shall be set such that 2-8 pumping cycles per hour may be achieved in the pump station at average flow. If extended detention times are necessary due to phased development, the need for odor and corrosion control must be evaluated by the applicant;

(3) at least one of the following shall be required:

(A) dual source or standby power supply on site or;

(B) telemetry systems with sufficient numbers of standby generators and personnel for distribution or;

(C) approval by the Director that the pump station:

(i) serves a private water distribution system which has automatic shut-off at power failure and no elevated water storage tanks, and

(ii) has sufficient storage capacity that no potential for overflow exists, and

(iii) is connected to facilities that can tolerate septic wastewater due to prolonged detention; or

(D) where the waters that would be impacted by a power failure are classified as C, the applicant may be allowed to show a history of power reliability that would demonstrate that an alternative power source or other reliability measures would not be needed.

(4) screened vents for all wet wells;

(5) high water audio and visual alarms;

(6) protection from a 100 year flood;

(7) restricted access to the site and equipment.

(8) all-weather roadway to the site;

(i) For sewer systems and sewer system extensions:

(1) All building drains and building sewers which are approved by the local building inspector in accordance with the North Carolina Building Code are deemed to be permitted by the Environmental Management Commission;

(2) All sewers shall be designed based upon at least minimum standards which include:

(A) wastewater flow rate at design loading should result in the sewer flowing approximately half full. The sewer must also be evaluated as to its ability to carry peak loadings;

(B) a velocity of two feet per second;

(C) construction and operation shall not result in water pollution;

(D) infiltration rate limited to 100 gallons per day per inch of pipe diameter per mile of pipe;

(E) construction and operation consistent with all applicable local ordinances;

(F) for public gravity sewers, a minimum eight inch diameter pipe and for private gravity sewers, a minimum six inch diameter pipe;

(G) minimum separations:

(i)	Storm sewers (vertical)	12 inches
(ii)	Water mains (vertical-water over sewer) or	18 inches

	(horizontal)	10 feet
(iii)	In benched trenches (vertical)	18 inches
(iv)	Any private or public water supply source, including any WS-I waters or Class I or Class II impounded reservoirs used as a source of drinking water	100 feet
(v)	Waters classified WS-II, WS-III, B, SA, ORW, HQW, or SB [from normal high water (or tide elevation)]	50 feet
(vi)	Any other stream, lake or impoundment	10 feet
(vii)	Any building foundation	5 feet
(viii)	Any basement	10 feet
(ix)	Top slope of embankment or cuts of 2 feet or more vertical height	10 feet
(x)	Drainage systems	
(I)	Interceptor drains	5 feet
(II)	Ground water lowering and surface drainage ditches	10 feet
(xi)	Any swimming pool	10 feet

(xii) Ferrous sewer pipe with joints equivalent to water main standards, shall be used where these minimum separations cannot be maintained. The minimum separation shall however not be less than 25 feet from a private well or 50 ft from a public water supply well.

(H) three feet minimum cover shall be provided for all sewers unless ferrous material pipe is specified. Ferrous material pipe or other pipe with proper bedding to develop design supporting strength shall be provided where sewers are subject to traffic bearing loads;

(I) the maximum separation between manholes shall be 425 feet unless written documentation is submitted with the application that the owner/authority has the capability to perform routine cleaning and maintenance on the sewer at the specified manhole separation;

(J) drop manholes shall be provided where invert separations exceed 2.5 feet;

(K) manholes shall be designed for 100-year flood protection;

(L) an air relief valve shall be provided at all high points along force mains;

(M) odor and corrosion control must be satisfactorily addressed by the applicant for all sewers and force mains with extended travel times.

(j) For treatment works and disposal systems:

(1) no by-pass or overflow lines;

(2) multiple pumps if pumps are used;

(3) at least one of the following:

(A) dual source/dual feed or automatically activated standby power supply on site, capable of powering all essential treatment components under design conditions, or

(B) approval by the Director that the facility:

(i) serves a private water distribution system which has automatic shut-off at power failure and no elevated water storage tanks, and

(ii) has sufficient storage capacity that no potential for overflow exists, and

(iii) can tolerate septic wastewater due to prolonged detention; or

(C) where the waters that would be impacted by a power failure are classified as C Waters, the applicant may be allowed to show a history of power reliability that would demonstrate that an alternative power source or other source or reliability measures would not be needed.

(4) protection from 100 year flood;

(5) buffer zones of at least the following distances, and greater where necessary to comply with Section 2H .0400 of this Subchapter or to address particular site or waste characteristics:

(A) Any habitable residence or place of public assembly under separate ownership or which is to be

sold:	
(i) for spray irrigation systems (application area) not covered by 15A NCAC 2H .0219(k)	400 feet
(ii) for surface residual application	400 feet
(iii) for subsurface residual injection	200 feet
(iv) for facultative lagoons	400 feet
(v) for activated sludge plants or surface sand filters	100 feet
(vi) for soil remediation sites	100 feet
(B) Any private or public water supply source	100 feet
(C) Streams classified as WS or B:	
(i) for subsurface disposal	50 feet
(ii) for non-discharge surface disposal except for high rate infiltration systems	100 feet
(iii) high rate infiltration systems	200 feet
(D) Waters classified SA or SB:	
(i) all systems except for high rate infiltration systems	100 feet from mean high water
(ii) high rate infiltration systems	200 feet from mean high water
(E) Any other stream, canal, marsh, or coastal waters	
(i) for subsurface disposal	50 feet
(ii) for non-discharge surface disposal except for high rate infiltration systems	100 feet
(iii) high rate infiltration systems	200 feet
(iv) wastewater treatment facilities	50 feet
(F) Any Class I or Class II impounded reservoir used as a source of drinking water	
(i) all systems except for high rate infiltration systems	100 feet from normal high water
(ii) high rate infiltration systems	200 feet from normal high water
(G) Any other lake or impoundment:	
(i) for subsurface disposal	50 feet
(ii) for surface disposal except for high rate infiltration systems	100 feet
(iii) high rate infiltration systems	200 feet
(H) Any building foundation except treatment facilities:	
(i) for subsurface disposal	10 feet
(ii) for surface disposal	15 feet
(I) Any basement	
(i) for subsurface disposal	15 feet
(ii) for surface disposal	15 feet
(J) Any property line	
(i) for spray irrigation	150 feet
(ii) for other surface disposal systems	50 feet

(iii)	for subsurface residuals injection	50 feet
(iv)	for other surface treatment systems	50 feet
(v)	for other subsurface systems	50 feet
(vi)	for soil remediation sites	50 feet
(K)	Top of slope of embankments or cuts of two feet or more in vertical height	
(i)	for systems other than rapid infiltration systems	15 feet
(ii)	for rapid infiltration systems	100 feet
(L)	Any water line from a disposal system	10 feet
(M)	Drainage systems (Ditches, drains, surface water diversions, etc):	
(i)	Interceptor drains and surface water diversions (upslope)	
(I)	for subsurface disposal	10 feet
(II)	for surface disposal other than spray irrigation systems and rapid infiltration systems	10 feet
(III)	for spray irrigation systems	100 feet
(IV)	for rapid infiltration systems	200 feet
(ii)	Interceptor drains and surface water diversions (downslope)	
(I)	for subsurface disposal	25 feet
(II)	for surface disposal other than spray irrigation systems and rapid infiltration systems	25 feet
(III)	for spray irrigation systems	100 feet
(IV)	for rapid infiltration systems	200 feet
(iii)	Groundwater lowering and surface drainage ditches	
(I)	for subsurface disposal	25 feet
(II)	for surface disposal other than spray irrigation and rapid infiltration systems	25 feet
(III)	for spray irrigation systems	100 feet
(IV)	for rapid infiltration systems	200 feet
(N)	Any swimming pool	
(i)	for subsurface disposal	15 feet
(ii)	for surface disposal	100 feet
(O)	Any other nitrification field (except repair area)	20 feet
(P)	Any well with the exception of an approved groundwater monitoring well	100 feet
(Q)	Public right-of-way surface disposal	50 feet

(6) flow equalization of at least 25 percent of the facilities permitted hydraulic capacity must be provided for all seasonal or resort facilities and all other facilities with fluctuations in influent flow which may adversely affect the performance of the system;

(7) preparation of an operational management plan, including restricted access to the site and equipment, and, if appropriate, a crop management plan;

(8) except for facilities for single family residences or as approved by the Director, appropriate monitoring wells designed to assess the impacts on the groundwater of any discharge and constructed in accordance with Section 2C .0100 of this Chapter;

(9) a minimum of 30 days of residual holding must be provided.

(k) For Land Application of Domestic Wastewater on Golf Courses and Other Public Access Areas:

(1) Aerated flow equalization facilities with a capacity of at least 25 percent of the daily system design flow.

(2) All essential treatment and disposal units shall be provided in duplicate.

(3) The treatment process shall produce an effluent with a monthly average TSS of less than 5 mg/l and a daily maximum TSS of less than 10 mg/l and a maximum fecal coliform level of less than

5/100 ml, prior to discharge to a five-day detention pond.

(4) There must be no public access to the five-day detention pond.

(5) The size of any irrigation pond, that follows the five day holding pond, shall be justified using a mass water balance for worse case conditions of record.

(6) An automatically activated standby power source or other means to prevent improperly treated wastewater from entering the five-day detention pond shall be provided.

(7) Requirements for the lining of the five-day detention and irrigation ponds, which may include use of impervious natural materials, shall be site-specific.

(8) In the design of the sprinkler system, there shall be no direct cross-connections to a potable water supply (includes no spigots on the distribution system).

(9) The rate of application shall be site-specific.

(10) There shall be a 50 foot vegetative buffer zone between the edge of spray influence and the nearest dwelling.

(11) Signs shall be posted at the proshop stating that the course is irrigated with treated wastewater.

(12) There shall be a certified operator of a class equivalent to the class facility on call 24 hours/day.

(l) Wastewater Flow Rates:

(1) In determining the volume of sewage from dwelling units, the flow rate shall be 120 gallons per day per bedroom. The minimum volume of sewage from each dwelling unit shall be 240 gallons per day and each additional bedroom above two bedrooms will increase the volume by 120 gallons per day. Each bedroom or any other room or addition that can reasonably be expected to function as a bedroom shall be considered a bedroom for design purposes. When the occupancy of a dwelling unit exceeds two persons per bedroom, the volume of sewage shall be determined by the maximum occupancy at a rate of 60 gallons per person per day.

(2) The following table shall be used to determine the minimum allowable design daily flow of wastewater facilities. Design flow rates for establishments not identified below shall be determined using available flow data, water-using fixtures, occupancy or operation patterns, and other measured data.

Type of Establishments	Daily Flow For Design	
Airports, also RR Stations, bus terminals. (not including food service facilities)	5	gal/passenger
Barber Shops	50	gal/chair
Bars, Cocktail Lounges (not including food services)	20	gal/seat
Beauty Shops	125	gal/booth or bowl
Bowling Alleys	50	gal/lane
Businesses (other than those listed in this table)	25	gal/employee
Camps		
Construction or work camps	60	gal/person
Summer camps	60	gal/person
Camp grounds Without water and sewer hookups	100	gal/campsite
Travel trailer/recreational vehicle park with water and sewer hookup	120	gal/campsite
Churches (not including food service, day care and camps)	3	gal/seat
Country Clubs - Resident Members	60	gal/person
Nonresident Members	20	gal/person
Day Care Facilities	15	gal/person
Factories (exclusive of industrial wastes) -- per shift	25	gal/person
Add for showers -- per shift	10	gal/person

Food Service Facilities Restaurants (including fast food)	40 40	gal/seat or gal/15 ft^2 of dining area, whichever is greater
24-hour Restaurants	50	gal/seat
Single-Service (exclusive of fast food)	25	gal/seat
Food Stands		
(1) Per 100 square feet of total floor space	50	gal
(2) Add per employee	25	gal
Hospitals	300	gal/bed
Laundries (self-service)	500	gal/machine
Marinas	10	gal/boat slip
With bathhouse	30	gal/boat slip
Meat Markets		
(1) Per 100 square feet of total floor space	50	gal
(2) Add per employee	25	gal
Motels/Hotel	120	gal/room
with cooking facilities in room	175	gal/room
Nursing/Rest Homes -- With laundry	120	gal/bed
Without laundry	60	gal/bed
Offices -- per shift	25	gal/person
Residential Care Facilities	60	gal/person
Resort (e.g. condominiums, apartments, motels, hotels)	200	gal/room
Restaurants	40 40	gal/seat or gal/15 ft^2 of dining area (whichever is greater)
Schools		
Day Schools		
With cafeteria, gym, and showers	15	gal/student
With cafeteria only	12	gal/student
With neither cafeteria nor showers	10	gal/student
Boarding	60	gal/person
Service Stations	250	gal/water closet or urinal
Stadiums, Auditoriums, Theaters, Drive-ins	5	gal/seat or space
Stores, shopping centers and malls -- Note: if food service is included, add 40 gal/seat	120	gal/1000 ft^2
Swimming Pools and Bathhouses	10	gal/person

(3) An adjusted daily sewage flow may be granted upon a showing that a sewage system is adequate to meet actual daily water consumption from a facility included in Subparagraph (1) or (2) of this Paragraph. Documented, representative data from that facility or a comparable facility shall be submitted, consisting of at least 12 consecutive monthly total water consumption readings and daily total water consumption readings for at least 30 consecutive days of water use. The daily readings shall be taken during a projected peak sewage flow month. The adjusted design daily sewage flow shall be determined by taking the numerical average of the daily readings that fall within the upper 10 percent of the daily readings when ranked in descending order.

(m) For Treatment and Disposal of Soil Containing Petroleum Products:

(1) Landfarming of Soils Containing Petroleum Products at Minimum Rates. Petroleum contaminated

soils shall be incorporated into the native soils of the receiver site immediately upon application. Liming, fertilization, and aeration of the soils mixture shall be optional, unless otherwise required by the Division. Subsequent application of petroleum contaminated soils onto the same receiver site shall not occur for at least 18 months from the date of the most recent application of petroleum contaminated soils and shall cause the receiver site to be reclassified as a "dedicated remediation site" unless the permittee or applicant can demonstrate, through soil sampling and contaminant analytical procedures approved by the Department, that the petroleum contaminant level in the upper eight inches of the receiver site soils is below analytical detection levels;

(2) Landfarming of Soil Containing Petroleum Products at Conventional Rates. Landfarming of soils containing petroleum product at an application thickness greater than one inch shall require fertilization, liming, and aeration of the native soils and petroleum contaminated soils mixture as approved by the Division. Application thickness shall be based upon the nature of the receiver site soils, depth to the seasonal high water table, the intended cover crop, and the source of contamination, in accordance with procedures approved by the Division. Operation of the landfarming program shall not result in contravention of classified groundwater or surface water quality standards. Subsequent application of petroleum contaminated soils onto the same receiver site shall not occur for at least 18 months from the date of the most recent application of petroleum contaminated soils and shall cause the receiver site to be reclassified as a "dedicated disposal site" unless the permittee or applicant can demonstrate, through soil sampling and contaminant analytical procedures approved by the Department, that the petroleum contaminant level in the upper eight inches of the receiver site soils is below analytical detection levels;

(3) Containment and Treatment of Soil Containing Petroleum Products:

(A) A containment structure designed to bioremediate or volatilize soil containing petroleum products shall be constructed of either a synthetic liner of at least 30 mils thickness or of a one foot thick liner of natural material, compacted to at least 95 percent standard proctor dry density and with a permeability of less than 1×10^{-7}cm/sec.

(B) The bottom of the containment structure shall be at least three feet above the seasonal high water table or bedrock.

(C) A leachate collection system must be installed in order to prevent runoff from the petroleum contaminated soils within the containment structure, or steps taken to avoid accumulation of stormwater within the containment structure.

(4) Disposal of Petroleum Contaminated Soils at Dedicated Sites. Subsequent applications of petroleum contaminated soils at dedicated sites shall not recur until such time as it can be demonstrated, by computer modeling or predictive calculations, that additional applications of contaminated soils will not result in the contravention of any applicable environmental standards. Disposal of petroleum contaminated soils at dedicated sites shall conform to procedures established by the Division.

(n) For Systems Utilizing Infiltration Galleries:

(1) An infiltration gallery shall be designed such that its largest surface dimension is greater than its depth and no vertical piping shall be installed within the trench.

(2) An infiltration gallery shall be designed such that discharges from the infiltration gallery which reach the water table must be within the zone of influence of any on-site groundwater recovery system, and must not cause or contribute to the migration of contaminants into previously uncontaminated areas. Predictive modeling shall be used to estimate the zone of influence, infiltration rate, groundwater movement and flow direction.

(o) Additional requirements:

(1) distance between water supply wells and waste facilities in accordance with Rule 2C .0107(a) of this Chapter or, if a greater area may be impacted, a distance in accordance with the perimeter of compliance described in Subchapter 2L of this Chapter;

(2) compliance with the groundwater standards specified in Subchapter 2L of this Chapter;

(3) where applicable compliance with rules on "coastal waste treatment disposal" found in Section .0400 of this Subchapter; and

(4) For subsurface disposal systems, compliance with rules on subsurface disposal systems found in 15A NCAC 18A .1900. Copies of these Rules are available from the Division of Environmental Health, P. O. Box 29535, Raleigh, North Carolina 27626-0535.

(p) Alternative Design Criteria may be approved by the Director. This approval will only be given in cases

where the applicant can demonstrate that the Alternative Design Criteria will provide the following:

(1) Equal or better treatment of the waste; and

(2) Equal or better protection of the waters of the state; and

(3) No increased potential for nuisance conditions.

History Note: Statutory Authority G.S. 143-215.1; 143-215.3(a)(1);
Eff. October 1, 1987;
Amended Eff. February 1, 1993; August 1, 1988.

.0220 CERTIFICATION OF COMPLETION

Prior to the operation of any sewer system, treatment works or disposal system for which an individual permit has been issued in accordance with this Section, a certification must be received by the permitting agency from a professional engineer certifying that the sewer system, treatment works or disposal system has been installed in accordance with the approved plans and specifications. For facilities with phased construction or where there is a need to operate certain equipment under actual operating conditions prior to certification, additional certification may be needed as follow-ups to the initial, pre-operation, certification.

History Note: Statutory Authority G.S. 143-215.1;
Eff. October 1, 1987;
Amended Eff. February 1, 1993.

.0221 OPERATIONAL AGREEMENTS

Prior to issuance or reissuance of a permit pursuant to this Section for a wastewater facility as specified in G.S. 143-215.1(d1), the applicant must either provide evidence to show that the applicant has been designated as a public utility by the State Utilities Commission or enter into a properly executed operational agreement with the Division of Environmental Management. The requirement for assurance of financial solvency will be made on a case by case determination.

History Note: Statutory Authority G.S. 143-215.1(d1);
Eff. October 1, 1987.

.0222 THE WASTEWATER TREATMENT WORKS EMERGENCY FUND

(a) In cases in which water quality standards are violated or an environmental health threat exists, monies from the Wastewater Treatment Works Emergency Maintenance, Operation and Repair Fund may be used at the discretion of the Director to correct the cause of such conditions.

(b) In this, the Director shall:

(1) Ensure the fiscal integrity of the fund;

(2) Use the fund only as a measure of last resort to protect water quality or public health when all other compliance and enforcement procedures have failed;

(3) Limit the use of the fund to wastewater treatment works with design flow capacities of less than or equal to one hundred thousand gallons per day (100,000 GPD);

(4) Notify the permittee by certified mail of the intention to take emergency corrective action and to recoup monies spend;

(5) Make every effort to recoup fund expenditures, including collection costs, from the parties responsible; and

(6) Coordinate use of the fund with the program of the Public Utilities Commission when a permittee is also a regulated utility.

History Note: Statutory Authority G.S. 143-215.3(a); 143-215.3B(c); 143-215.3B(e);
Eff. August 1, 1988;
Amended Eff. February 1, 1993.

.0223 DEMONSTRATION OF FUTURE WASTEWATER TREATMENT CAPACITIES

In order to insure that treatment systems do not exceed their hydraulic treatment capacities, no permits for sewer line extensions will be issued to wastewater treatment systems owned or operated by municipalities,

counties, sanitary districts or public utilities after January 1, 1994 unless they meet the following requirements:

(1) Prior to exceeding 80 percent of the wastewater treatment system's permitted hydraulic capacity (based on the average flow of calendar year 1993 or any subsequent calendar year), the permittee must submit an approvable engineering evaluation of their future wastewater treatment needs. This evaluation must outline specific plans for meeting future wastewater treatment needs by either expansion of the existing system, elimination or reduction of extraneous flows, or water conservation and must include the source(s) of funding for the improvements. If expansion is not proposed or is proposed for a later date, a detailed justification must be made and approved by the Director based on past growth records and future growth projections and, as appropriate, shall include conservation plans or other specific measures to achieve waste flow reductions.

(2) Prior to exceeding 90 percent of the wastewater treatment systems permitted hydraulic capacity, (based on the average flow of calendar year 1993 or any subsequent calendar year), the permittee must obtain all permits needed for the expansion of the wastewater treatment system and, if construction is needed, submit approvable final plans and specifications for expansion including a construction schedule. If expansion is not proposed or is proposed for a later date, a detailed justification must be made and approved by the Director based on past growth records and future growth projections and, as appropriate, shall include conservation plans or other specific measures to achieve waste flow reductions.

(3) The Director may on a case by case basis, allow permits to be issued to facilities that are exceeding the 80 percent or 90 percent loading rates if the additional flow is not projected to result in the facility exceeding its permitted hydraulic capacity, the facility is in compliance with all other permit limitations and requirements and it is demonstrated to his satisfaction that adequate progress is being made in developing the needed engineering evaluations or plans and specifications.

History Note: Filed as Temporary Amendment Eff. September 13, 1993, For a Period of 180 Days or Until the Permanent Rule Becomes Effective, Whichever is Sooner;
Statutory Authority G.S. 143-215.3;
Eff. February 1, 1993;
Amended Eff. February 1, 1994.

.0224 TREATMENT FACILITY OPERATION AND MAINTENANCE

(a) For facilities permitted under this Section, the permittee must designate an Operator in Responsible Charge and a back-up operator as required by the Water Pollution Control System Operators Certification Commission as established in 15A NCAC 8A .0202. Copies of this Rule are available from the Division of Environmental Management, Water Quality Section, Archdale Building, 512 N. Salisbury Street, P.O. Box 29535, Raleigh, North Carolina 27626-0535 at no charge.

(b) In order to insure the proper operation and maintenance of facilities permitted under this Section, the Operator in Responsible Charge, or a back-up operator when appropriate, must operate and visit the facility as required by the Water Pollution Control System Operators Certification Commission as established in 15A NCAC 8A .0202. Copies of this Rule are available from the Division of Environmental Management, Water Quality Section, Archdale Building, 512 N. Salisbury Street, P.O. Box 29535, Raleigh, North Carolina 27626-0535 at no charge.

History Note: Statutory Authority G.S. 143-215.3;
Eff. February 1, 1993.