

SECTION .0400 - COASTAL WASTE TREATMENT DISPOSAL

15A NCAC 02H .0401 STATEMENT OF POLICY

It is hereby declared to be the policy of the Environmental Management Commission that all wastewater generated in the State of North Carolina shall be treated to such an extent as to insure the compliance with water quality standards promulgated by the Commission. It is further the policy of the Commission that regional and area-wide wastewater collection and treatment facilities shall be promoted to the fullest practicable extent. The Commission recognizes, however, that development of area-wide and regional sewerage systems is not always in keeping with the demands for growth within the areas and that interim regulations are necessary to insure that water quality standards are not violated. In keeping with this policy, the Commission adopts these Regulations of this Section.

*History Note: Authority G.S. 143-215.3(a)(1); 143-211; 143-215.1(a); 143-215.1(b)(1);
Eff. February 1, 1976.*

15A NCAC 02H .0402 APPLICABILITY

These Regulations shall apply to treatment and disposal of waste from all installations located within the coastal areas which are subject to the regulations of the Environmental Management Commission.

*History Note: Authority G.S. 143-215.3(a)(1); 143-211; 143-215.1(a); 143-215.1(b)(1);
Eff. February 1, 1976;
Amended Eff. September 13, 1981.*

15A NCAC 02H .0403 DEFINITION OF COASTAL AREAS

The coastal areas for the purposes of these Regulations are defined to include:

- (1) the Outer Banks;
- (2) those land areas bordering the coastal waters, including all waters assigned a salt water "S" classification and all tributaries that have experienced excessive growths of microscopic or macroscopic vegetation or that, because of their relative size and lack of water exchange are found by the Commission to be subject to such excessive growths; and
- (3) land areas bordering all natural impoundments situated east of the line established by the North Carolina Environmental Management Commission to designate coastal waters, said land being described as follows:
"Extends from a point on the North Carolina/South Carolina state line near Calabash, North Carolina, generally along the lines of the Atlantic Coast Line Railroad and Norfolk Southern Railway, northeasterly and northerly to River Mile 66.0 (Lock No. 1) on the Cape Fear River; thence northerly to River Mile 30.0 on Black River; thence easterly to River Mile 48 on the North East Cape Fear River; thence northerly and easterly to River Mile 22.5 in New River; thence easterly and northerly to River Mile 25.0 on White Oak River (Atlantic Coast Line Railroad Bridge); thence northerly and easterly to River Mile 38.9 on Neuse River (Norfolk Southern Railway Bridge); thence northerly to River Mile 44.6 on Pamlico River (Norfolk Southern Railway Bridge); thence northeasterly and northerly crossing Albemarle Sound along Norfolk Southern Railway Bridge; thence northerly and easterly to River Mile 13.5 on Perquimans River (Norfolk Southern Railway Bridge); thence easterly to River Mile 20.0 on Pasquotank River (Norfolk Southern Railway Bridge); and thence northerly to the North Carolina/Virginia state line near Moyock, North Carolina."

*History Note: Authority G.S. 143-215.3(a)(1); 143-211; 143-215.1(a); 143-215.1(b)(1);
Eff. February 1, 1976;
Amended Eff. September 13, 1981.*

15A NCAC 02H .0404 FACILITY LOCATION AND DESIGN

(a) No domestic sewage regardless of the treatment proposed and no other wastes which could adversely affect the taking of shellfish for market purposes shall be discharged into water classified "SA", into unnamed waters tributary to "SA" waters classified "C" or "SC" in accordance with Rule 2B .0301(i)(1)(B) and (C), or into other waters in such close proximity as to adversely affect such "SA" waters. Wastes discharged into other waters tributary to waters classified "SA" shall be treated in such manner as to assure that no impairment of water quality in the "SA" segments shall occur. No permits shall be issued for discharges into waters classified "SA" unless Shellfish Sanitation, Environmental Health Section, Department of Human Resources, provides written concurrence that the discharge would not adversely affect shellfish water quality or the propagation of shellfish.

(b) No wastes shall be discharged to waters classified "SB" unless these wastes are treated to the extent necessary to assure protection of assigned water quality standards.

(c) The Director may prohibit or limit any discharge of waste into surface waters if, in the opinion of the Director, the surface waters experience or the discharge would result in:

- (1) growths of microscopic vegetation such that chlorophyll a values are greater than 40 ug/l;
or
- (2) growths of microscopic or macroscopic vegetation which substantially impair the intended best usage of the waters.

(d) The discharge of wastewaters to the Atlantic Ocean shall follow the guidelines and requirements set forth in the United States Environmental Protection Agency regulation Ocean Discharge Criteria, 40 C.F.R. 125.120 through 125.124, which is specifically adopted by reference as promulgated on October 3, 1980.

(e) In all cases where connection to an area-wide sewerage system is feasible, such connection thereto shall be required.

(f) Septic tank systems shall not be approved in high density areas. For purposes of this Regulation high density areas are defined as those areas producing more than 1,200 gallons of waste per acre per day or which contain more than three residential units per acre. For purposes of this Regulation a septic tank system is defined as a ground absorption sewage disposal system consisting of a holding or settling tank and a ground absorption field. Septic tank systems shall be designed and constructed in accordance with Environmental Management Commission regulations governing septic tank systems.

(g) Interim Treatment and Disposal Facilities. In those cases where an approved area-wide collection and treatment system is not available, and where discharge to the surface waters is prohibited in Paragraphs (a), (b), (c), (d), and where use of a septic tank system is prohibited by paragraph (f), interim treatment and disposal facilities may be approved subject to their meeting the following requirements.

- (1) Wastes other than those disposed of by spray irrigation shall receive tertiary treatment followed by adequate bactericidal treatment. For purposes of this Regulation tertiary treatment shall constitute biological treatment followed by acceptable solids removal to the extent accomplished by filtration. Also, flow equalization will be required unless it can be adequately demonstrated that either the wastewater influent flow rate will be of a uniform nature or that the proposed treatment units are designed such that they can adequately treat this wastewater without experiencing hydraulic overload.
- (2) Waste treatment facilities (except septic tank-surface sand filter systems) shall be located at least 10 feet from adjacent property under separate ownership, developed or undeveloped and at least 10 feet from on-property residential units if these units are to be sold, e.g., condominiums, residential subdivision houses. Septic tank-surface sand filter systems shall be located at least 200 feet from on-property residential units if these units are to be sold and at least 200 feet from adjacent property under separate ownership.
- (3) Waste treatment facilities shall be equipped with effective noise and odor control devices and are to be enclosed by a solid or semi-solid structure or other approved structure. An automatically activated standby power source shall be provided. All essential treatment and disposal units shall be provided in duplicate.
- (4) Treated wastes may be disposed of in on-site disposal facilities, which shall be located at least 500 feet from any impounded public surface water supply or public shallow (less than 50 feet deep) ground water supply, and at least 100 feet from a private ground water supply except when a study of the soil would indicate a lesser separation acceptable.

- (5) Waste disposal facilities shall be located at least 100 feet from any waters classified SA and at least 50 feet from any other waters. In the case of drainage ditches that are normally dry this distance may be reduced to 25 feet.
- (6) Waste disposal facilities are to be designed on the basis of site conditions and soil percolation rates. In Parts (A), (B), and (C) of this Subparagraph are given the maximum loading rates for three different treatment systems. Higher loading rates or other methods of waste disposal may be approved by the Director based upon data submitted by the applicant.
 - (A) Subsurface Disposal Trench. One and one-half gallons per day per square foot of trench bottom based on maximum trench width of three feet. Trenches shall be separated at least eight feet center to center.
 - (B) Low Pressure Distribution System. One gallon per day per square foot of effective absorption area encompassed by the distribution system. The calculation of the amount of effective absorption area required shall be based on a maximum distribution line separation of five feet center to center.
 - (C) Rotary Distributors. Ten gallons per day per square foot of surface area.
- (7) Waste disposal areas are to contain at least 1,000 square feet of open "green area" for each residential unit served, or 2,500 square feet per thousand gallons per day of waste flow, whichever is less. The term "green area" contained herein is defined as an area suitable for waste disposal, either in its natural state or which has been modified by planting vegetative cover of grasses or low growing shrubbery. Green areas shall not include street or roadway right-of-ways or areas not available for waste disposal. Not more than 25 percent of the required area may be covered with non-traffic bearing paved surfaces such as walkways or patios. Subsurface disposal areas shall not be used as parking lots, driveways, or for other vehicular traffic uses.
- (8) Wastes that are to be disposed of by spray irrigation shall receive a level of treatment which will not render either the irrigation system or the disposal area unworkable. Spray irrigation systems shall be located at least 200 feet from any adjoining property, buffered by trees to prevent excessive drift. Such areas shall be surrounded by fencing with warning signs to discourage human use or trespass, and designed according to good engineering practices with the application rate not to exceed one and three fourth inches per week-unless the Director determines, based on data submitted by the applicant, that a higher application rate is justified.

History Note: Authority G.S. 143-211; 143-214.2(c); 143-215; 143-215.1(a); 143-215.1(b)(1); 143-215.3(a)(1);
Eff. February 1, 1976;
Amended Eff. November 1, 1986; April 1, 1983; September 13, 1981; May 11, 1980.

15A NCAC 02H .0405 PRIVATELY OWNED INSTALLATIONS

(a) Privately owned waste collection treatment and disposal systems serving establishments existing on the effective date of these Regulations shall comply with the requirements enumerated in these Regulations unless impossible. If adherence to the guides is not possible, the highest level of control technology consistent with site limitations shall be employed. No expansion of the load tributary to existing non-public facilities will be allowed until compliance with the guides established in these Regulations is obtained.

(b) Privately owned wastewater collection, treatment and disposal systems serving establishments not in existence on the effective date of these Regulations shall comply with the provisions of these Regulations.

History Note: Authority G.S. 143-215.3(a)(1); 143-211; 143-215.1(a); 143-215.1(b)(1);
Eff. February 1, 1976;
Amended Eff. September 13, 1981.

15A NCAC 02H .0406 PUBLICLY OWNED SEWERAGE FACILITIES

(a) Existing publicly owned waste collection, treatment, and disposal facilities shall comply with the requirements of these Regulations unless such compliance is determined by the Commission to be "not in the public interest." Such a finding would result when requirements of these Regulations could not be met even after "best available control technology economically achievable" has been provided.

(b) New publicly owned waste collection, treatment, and disposal facilities shall comply with the provisions of these Regulations, and any other applicable regulations of the Commission.

History Note: Authority G.S. 143-215.3(a)(1); 143-211; 143-215.1(a); 143-215.1(b)(1);
Eff. February 1, 1976;
Amended Eff. September 13, 1981.

15A NCAC 02H .0407 EXCEPTIONS FROM REQUIREMENTS

No exception from the requirements of these Regulations shall be made until such exception is approved by the Commission.

History Note: Authority G.S. 143-215.3(a)(1); 143-211; 143-215.1(a); 143-215.1(b)(1);
Eff. February 1, 1976.

15A NCAC 02H .0408 DISPOSAL OF STORMWATER

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1);
Eff. November 1, 1986;
Repealed Eff. January 1, 1988.

15A NCAC 02H .0409 TRIAL IMPLEMENTATION PERIOD/COASTAL STORMWATER CONTROLS

History Note: Authority G.S. 143-215.3(a)(1);
Eff. November 1, 1986;
Repealed Eff. January 1, 1988.