12.03-06/22/88-00674

UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

IN REPLY REFER TO:

6280/9
FAC
JUN 22 1988

From: Commanding General, Marine Corps Base, Camp Lejeune, North Carolina 28542-5001
To: Commander, Atlantic Division, Naval Facilities Engineering Command, Norfolk, Virginia 23511-6287 (Code 114)

Subj: PROPOSED STATE OF NORTH CAROLINA GROUNDWATER STANDARDS

Encl: (1) Excerpt from the NC Register, date 15 Jun 88: pages 241-254; NCNRDC Proposed Regulations on Groundwater Classification and Standards

1. Request your review of the enclosure in relation to compliance with these standards by the Installation Restoration Program. We are particularly interested in your evaluation of the water quality standards presented in Section .0202 for the organic compounds being addressed at the Hadnot Point Industrial Area. Please advise of any compliance problems which you foresee in meeting these standards.

2. POC for this matter is Bob Alexander, autovon 484-3034.

K. J. KIRIACOPOULOS
By direction

Copy to:
ESE, Inc.

statements for the most recent fiscal year shall satisfy this requirement unless the department determines that additional or more recent financial information is required.

Statutory Authority G.S. 58-9; 58-536.

.0302 DETERMINATION OF FINANCIAL RESPONSIBILITY

In determining the financial responsibility of an applicant for a certificate of registration, the department requires that an applicant be solvent. In addition, the department will consider, among other things:

(1) liquidity, and
(2) any internal controls the applicant may have in place to afford protection for benefit plans, which may include, but are not limited to, the manner in which benefit plan fund accounts are established.

Statutory Authority G.S. 58-9; 58-532; 58-536.

.0303 FINANCIAL INFORMATION PUBLIC RECORDS

All financial information filed in support of an application for initial issuance or renewal of a certificate of registration will be subject to the public records law of North Carolina. Such information will not be released by the department until registration is accomplished and a certificate issued. In the event that the application is withdrawn from consideration by the applicant, then it will not be deemed public information.

Statutory Authority G.S. 58-9; 58-11; 132-6.

.0304 FIDELITY BOND ISSUED BY LICENSED COMPANY

The fidelity bond required by G.S. 58-536(b) must be issued by an insurance company licensed or authorized to do business in North Carolina. Such bond must be issued in the name of the third party administrator and provide for notification to the Department of Insurance 30 days in advance of any termination, or increase or decrease in the amount thereof. A copy of the policy is required to be filed with the department.

Statutory Authority G.S. 58-9; 58-15; 58-29; 58-536.

SECTION .0400 - GENERAL PROVISIONS

.0401 SERVICE CONTRACTS WITH INSURANCE COMPANIES

All service contracts with insurance companies must be with insurers licensed or authorized to operate in North Carolina.

Statutory Authority G.S. 58-9; 58-15; 58-527.

.0402 ADJUSTING CLAIMS BY THIRD PARTY ADMINISTRATORS

No adjuster's license will be required of persons acting for third party administrators in adjusting claims for life, accident and health and annuity claims or self-funded health benefit plans.

Statutory Authority G.S. 58-9; 58-529; 58-533; 58-611(b).

.0403 VIOLATIONS: PENALTIES

The department shall follow the provisions of G.S. 58-9.7 for the imposition of civil penalties against any third party administrator that does not obtain a certificate of registration prior to beginning its operations in this state in accordance with Article 41 of the North Carolina General Statutes.

Statutory Authority G.S. 58-9; 58-9.7; 58-536.

TITLE 15 - DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

Notice is hereby given in accordance with G.S. 150B-12 that the Department of Natural Resources and Community Development intends to adopt regulations cited as 15 NCAC 2L .0106 - .0114; amend regulations cited as 2L .0101 - .0104, .0201 - .0202, .0301 - .0302, and .0319; and repeal regulation cited as 2L .0105.

The proposed effective date of this action is January 1, 1989.

The public hearing will be conducted at 7:00 p.m. at:

ASHEVILLE
July 26, 1988
Humanities Lecture Hall
UNC-Asheville

RALEIGH
July 28, 1988
Ground Floor Hearing Room
Archdale Building
512 N. Salisbury St.

NEW BERN
August 2, 1988
Building C, Room C-15
Craven County Community College

Comment Procedures: Oral comments may be made at a hearing, or written statements may be submitted to the agency prior to September 1, 1988. Written copies of oral statements exceeding three minutes are requested. Oral statements may be limited at the discretion of the hearing officers.

CHAPTER 2 - ENVIRONMENTAL MANAGEMENT

SUBCHAPTER 2L - GROUNDWATER CLASSIFICATION AND STANDARDS

SECTION .0100 - GENERAL CONSIDERATIONS

.0101 AUTHORIZATION

~~(a)~~ N.C. General Statute 143-214.1 directs that the Commission develop and adopt after proper study a series of classifications and standards which will be appropriate for the purpose of classifying each of the waters of the state in such a way as to promote the policy and purposes of the act. Pursuant to this statute, the ~~Regulations of~~ rules in this Subchapter establish a series of classifications and water quality standards applicable to the ~~underground waters~~ groundwaters of the state.

~~(b) These Regulations and the standards they establish apply to all classified underground waters. Many common activities take place in or near shallow subsurface waters with no resulting violation of GA groundwater quality standards and it is the intention of these Regulations that these activities continue unimpeded except where specific problems are identified on a case by case basis. These activities include:~~

~~(1) the agricultural operations of applying fertilizer, herbicides, or pesticides to croplands or pastures, and the raising of livestock;~~

~~(2) silvicultural fertilizer, herbicide or pesticide application; home or commercial fertilizer, pesticide, or herbicide application;~~

~~(3) structural pest control activities when conducted according to label directions; and~~

~~(4) subsurface or surface municipal, industrial, and domestic waste disposal activities or other activities which may affect underground waters when these systems are installed and operated or conducted according to regulations established by the Departments of Human Resources, Agriculture, or Natural Resources and Community Development.~~

~~(c) As used herein, the phrase "specific problems" shall mean a set of facts or circumstances which show with a reasonable certainty that one or more of the following exists or will exist in the foreseeable future:~~

~~(1) An existing or probable violation of GA groundwater standards;~~

~~(2) The existence or probability of a violation of any other environmental standard or regulation;~~

~~(3) A threat to human life, health, or safety;~~

~~(4) A threat to the environment.~~

~~(d) The regulations established in this Subchapter are intended to maintain and preserve the quality of the subsurface and groundwaters, prevent and abate pollution and contamination, protect public health, and permit management of the groundwaters for their best usage by the citizens of North Carolina. It is the policy of the EMC that the best usage of the groundwater of the state is as a source of drinking water in its ambient state. These groundwaters generally are a potable source of drinking water without the necessity of treatment. It is the intent of these Regulations to protect the overall high quality of North Carolina's groundwaters and to enhance and restore the quality of degraded groundwaters to the level established by the standards wherever practicable.~~

Statutory Authority G.S. 143-214.1; 143-214.2; 143-215.3(a)(1); 143B-282.

.0102 DEFINITIONS

The definition of any word or phrase used in these ~~regulations~~ Rules shall be the same as given in G.S. 143-213 except that the following words and phrases shall have the following meanings:

~~(1) Deleterious substance means any substance which may cause the water to be unpleasant to taste, or unsightly, or otherwise renders the water unsuitable for human consumption.~~

(1) "Alternate contaminant concentration" means the allowable concentration of a contaminant, in excess of water quality standards, as established for restoration activities.

(2) "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.

(3)~~(22)~~"Commission" ~~shall mean~~ means the Environmental Management Commission as organized under ~~General Statute Section 143B-282, et seq.~~ G.S. 143B.

~~(23) "Land Surface" for the purpose of determining the location of GB waters shall be the existing contour of the earth, whether the natural contour or artificially altered by~~

~~excavation. In the case of an alteration of the existing land surface by the addition of fill material, the land surface is the natural contour of the earth as it existed prior to any alteration. Where it is determined that a person has intentionally altered the surface of the earth for the purpose of evading the regulations and standards contained in this Subchapter, the phrase, "land surface" shall mean the contour of the earth that existed prior to such activity.~~

(4)~~(25) Perimeter of~~ "Compliance boundary" means a boundary around a disposal system at and beyond which water quality standards may not be exceeded and only applies to facilities which are applying for or have received a permit from the Division of Environmental Management under G.S. 143-215.1, or for disposal systems permitted by the Department of Human Resources. ~~shall mean the locus of all points in the vertical plane extending downward from the points of compliance surrounding a point of discharge.~~

~~(5) Micrograms per liter (ug/l) gives the weight in micrograms of any constituent in one liter of solution.~~

~~(6) Milligrams per liter (mg/l) is the weight in milligrams of any specific constituent or constituents in a liter of the solution.~~

(5)~~(26)~~"Director" ~~shall mean~~ means director of the Division of Environmental Management.

(6)~~(2)~~"Fresh groundwaters" ~~are~~ means those groundwaters having a chloride concentration equal to or less than 250 milligrams per liter.

~~(7) Naturally occurring concentration means the concentration of chemical or biological substances or physical characteristics which exist naturally and which have not been changed by man's activities.~~

(7)~~(3)~~"Groundwaters" ~~are~~ means those waters in the saturated zone of the earth.

~~(4) Infiltration water means the water that infiltrates or moves into the subsurface or occurs between the land surface and the top of the saturated zone or serves to recharge groundwaters.~~

(8) "Limit of detectability" means the method detection limit established for the U.S. EPA approved test procedure providing the lowest method detection limit for the substance being monitored.

(9)~~(8)~~"Natural ~~quality~~ conditions" means the physical, biological, ~~and~~ chemical and radiological conditions ~~quality~~ which occurs naturally. ~~and which has not been changed by man's activities.~~

~~(9) Parts per million (ppm) and parts per billion (ppb) shall be construed to be equivalent to milligrams per liter and micrograms per liter, respectively.~~

~~(24) "Point of Compliance" shall be the point at the land surface at which penalties under G.S. 143-214.6(a)(1)(b) may be imposed for a violation of applicable underground water quality standards. (See Rule .0103(h) of this Subchapter).~~

~~(10) Point of discharge or outlet is the point of initial contact of waste with the existing soil or rock materials.~~

(10)~~(11)~~"Potable waters" ~~are~~ means those waters suitable for drinking, by humans. ~~culinary and food processing purposes.~~

(11)~~(12)~~"Saline groundwaters" ~~are~~ means those groundwaters having a chloride concentration of more than 250 mg/l.

(12)~~(13)The saturated~~"Saturated zone" ~~is~~ means that part of the ~~water-bearing consolidated and unconsolidated formations~~ subsurface below the water table in which all the interconnected voids are filled with water under pressure at or greater than atmospheric. It does not include the capillary fringe.

~~(14) Subsurface means the area beneath the land surface and may or may not be part of the saturated zone.~~

~~(15) Subsurface waters are those waters occurring in the subsurface and include groundwaters and infiltration waters.~~

~~(16) Toxic substances shall mean those substances which if ingested or assimilated into any organism either directly or indirectly will cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in such organisms of their offspring).~~

(13) "Suitable for drinking" means a quality of water which does not contain substances in concentrations which, either singularly or in combination if ingested into the human body, will cause death, disease, behavioral abnormalities, congenital defects, genetic mutations, or result in an incremental lifetime cancer risk in excess of $1x10^{-6}$, or render the water unacceptable due to aesthetic qualities, including taste, odor and appearance.

~~(17) The unsaturated zone is the portion of the consolidated and unconsolidated formations between land surface and the water table. It includes the capillary fringe.~~

(14) "Waste boundary" means the horizontal perimeter of the permitted waste disposal area.

(15)~~(18)~~"Water table" ~~is~~ means the surface of the saturated zone ~~in the unconfined water-bearing formation or material~~ below which all interconnected voids are filled with water and at which the pressure is atmospheric.

~~(19) Thermal waste for purposes of groundwater quality means discharges having a temperature which is in excess of 30 degrees Fahrenheit above or below the naturally occurring temperature of the receiving groundwater as determined by the director.~~

~~(20) Underground waters means all waters in the subsurface including infiltration and groundwaters.~~

~~(21) "Person" shall mean any individual, proprietorship, partnership, joint venture, corporation, or any other entity, or any employee, designee, agent, or representative in any official capacity empowered to act in behalf of that entity with knowledge of that entity, either express or implied.~~

Statutory Authority G.S. 143-214.1; 143-215(a)(1); 143B-282.

.0103 POLICY

(a) ~~The discharge of any wastes to the subsurface or groundwaters of the state by means of wells is prohibited.~~ The rules established in this Subchapter are intended to maintain and preserve the quality of the groundwaters, prevent and abate pollution and contamination of the waters of the state, protect public health, and permit management of the groundwaters for their best usage by the citizens of North Carolina. It is the policy of the commission that the best usage of the groundwaters of the state is as a source of drinking water. These groundwaters generally are a potable source of drinking water without the necessity of treatment. It is the intent of these Rules to protect the overall high quality of North Carolina's groundwaters and to enhance and restore the quality of degraded groundwaters to the level established by the standards, wherever practicable.

(b) ~~(g)~~ It is the intention of the Environmental Management Commission to protect all ~~the underground waters existing below a depth of 20 feet beneath the surface of the land~~ groundwaters to a level of quality at least as high as that required under the standards established in Rule .0202 of this Subchapter. However, the commission may permit degradation of groundwater quality below the level of the applicable standards within boundaries established in accordance with the rules of this Subchapter. ~~In keeping with the overall policy of the EMC to protect, maintain, and enhance water quality within the State of North Carolina, the EMC~~ The commission will not approve any ~~project or development~~ disposal system subject to the provisions of G.S. 143-215.1 which would result in ~~the significant degradation of groundwaters whose existing quality is better than the assigned standard,~~ a violation of the water quality standards beyond the boundaries of the property on which the source of pollution is located, or which would result in the impairment of existing groundwater uses or would adversely impact the public health, safety, or welfare. ~~unless such degradation is found to be economically and socially justifiable, and in the best public interest. It is within the authority and in keeping with the policies of the EMC to decline to allow degradation from the existing background quality of an underground water source down to the level of the standard without such social and economic justification. Prior to the approval of any project or development which will result in the significant degradation of groundwater quality, the EMC will solicit, through public notice, or public hearing, or both, comments from the public and governmental agencies relative to the project or development and anticipated underground water quality degradation.~~

~~(c) In addition to the GA, GSA, GB, GSB classifications assigned to underground waters as a provision of this Subchapter, the director is authorized to designate such underground waters "restricted" (RS) under any of the following circumstances:~~

~~(1) Where underground waters contain toxic or deleterious substances in excess of the maximum allowable concentrations established under this Subchapter, and restoration or treatment can be shown to be technologically and economically feasible.~~

~~(2) Where a statutory variance has been granted for the underground waters as provided is Paragraph (d) of this Rule.~~

~~(3) Where underground waters contain naturally occurring concentrations in excess of the standards established under Rule .0202(b) of this Subchapter whether or not restoration or treatment is feasible, but provided that restoration for naturally occurring excess concentrations may not be required of any person as a result of this designation.~~

~~(4) Where underground waters have been designated RS under Subparagraph (1) of this Paragraph, and where the source of~~

~~contamination and the responsible person are identified, a compliance schedule shall be issued within 12 months of the underground waters being designated.~~

(c) The commission recognizes that the application of fertilizers and other agricultural chemicals on land used for agricultural or silvicultural activities may result in the presence of these substances in the underlying groundwaters in concentrations exceeding water quality standards, as established in Rule .0202 of this Subchapter, because of a seasonally high or fluctuating water table. The presence of these substances in concentrations in excess of water quality standards shall not be considered a violation if they result from applications made in accordance with label instructions, where applicable, or accepted agronomic practices, and do not occur in concentrations exceeding the water quality standards beyond the boundary of the property on which they were applied or below a depth of ten feet below land surface.

~~(d) Any person subject to the provisions of General Statute 143-215.1 may apply to the EMC for a variance from the groundwater classifications and quality standards established pursuant to these Regulations and North Carolina General Statute 143-214.1. A variance may be granted by the commission pursuant to the requirements of North Carolina General Statute 143-215.3(e). The burden of proof in any public hearing or other proceeding pursuant to North Carolina General Statute 143-215.3(e) shall be upon the applicant for a variance. No variance shall be granted to allow the discharge of waste to the subsurface or groundwaters of the state by means of wells or for an extension or expansion of the perimeter of compliance as established pursuant to the regulations of this Subchapter.~~

(d) ~~(b)~~ No person shall conduct or permit an activity which causes ~~cause~~ the concentration of any ~~toxic or deleterious substances~~ substance, to exceed that specified in Rule .0202 of this Subchapter, except as authorized by the rules of this Subchapter. ~~in accordance with a compliance schedule authorized by the director.~~

~~(e) Any person conducting an activity causing or significantly contributing to the violation of underground water quality standards may apply to the director for a compliance schedule. In such cases the director may authorize a compliance schedule requiring the restoration of the quality of the underground waters to the level of the standard, or to a level as close to the applicable standards hereunder as is economically and technologically feasible. In determination the structure, duration, level of compliance, and feasibility of a compliance schedule, the director shall consider the extent of any violations, the extent of any threat to human health or safety, the extent of damage to the environment, the total cost of the cleanup involved, the marginal cost of the cleanup required, further technological advances which might permit such cleanup, and the public and economic benefit of requiring such cleanup. Compliance schedules may be revised or revoked by the director if the terms of the compliance schedules are violated by the person operating thereunder, or if additional information on the extent and magnitude of the violation becomes known. Where is it determined that there was willful or intentional violation of the underground water quality standards, the director shall not grant a compliance schedule prior to instituting the appropriate enforcement provision under G.S. 143-214.6.~~

(e) ~~(f)~~ An activity or ~~source of pollution~~ disposal system operating under and in compliance with the terms of a ~~statutory~~ variance or a special order ~~compliance schedule established under these Regulations~~ is deemed to be in compliance with the water ~~groundwater~~ quality standards.

~~(h) Perimeter of Compliance: Existing and New Facilities.~~

~~(1) Exceedances of the standards established for the underground waters occurring within the perimeter of compliance shall not be subject to the penalty provisions applicable under 143-215.6(1)a.~~

~~(2) The commission shall otherwise consider underground waters existing within the compliance perimeter to be classified waters of the state, and shall require:~~

~~(A) that permits for all activities governed by G.S. 143-214.1 will be written to protect the level of groundwater quality established by GA standards;~~

~~(B) that necessary groundwater quality monitoring within the compliance perimeter will be required;~~

~~(C) that a violation of standards within the compliance perimeter be remedied through clean-up, recovery, containment, or other response which the commission determines to be necessary when any of the following conditions occur:~~

~~(i) a violation of the standard in adjoining GA waters occurs or can be reasonably predicted to occur considering hydrogeologic conditions, modeling, or other available evidence;~~

~~(ii) an imminent hazard or threat to the public health or safety exists or can be predicted.~~

~~(3) For existing facilities, the compliance perimeter shall be established at a distance~~

~~500 feet from the point of discharge, or the property boundary, whichever is less.~~

~~(4) For new facilities, the compliance perimeter shall be established at the lesser of 250 feet from the point of discharge, or 50 feet within the property boundary.~~

~~(5) Nothing in this Rule shall be construed to prevent the commission from initiating enforcement action even when pollution occurs solely within the compliance perimeter based upon permit violations, imminent threat to the public health, safety, or the environment, or violations of any special order issued by the commission.~~

~~(i) Exemptions. The following activities shall not be subject to the regulations of this Subchapter:~~

~~(1) Upcoming resulting from water use activities conducted under and in compliance with a water use permit.~~

~~(2) The use of drilling fluids as approved under the well construction regulations.~~

Statutory Authority G.S. 143-214; 143-214.1; 143-214.2; 143-215.3(e); 143-215.3(a)(1); 143B-282.

.0104 RS DESIGNATION

~~Tests or analytical procedures to determine compliance or non-compliance with the underground water quality standards established in Rule .0202 of this Subchapter will be in accordance with:~~

~~(1) the methods described in Standard Methods for the Examination of Water and Wastewater, fifteenth edition, 1980; and the 1981 supplement thereto;~~

~~(2) testing, monitoring, on analytical procedures required as a condition of a permit issued by the Division of Environmental Management under N.C.G.S. 143-214.1; or~~

~~(3) methods approved by letter from the Director of the Division of Environmental Management.~~

The director is authorized to designate GA or GSA groundwaters as RS under any of the following circumstances:

(1) Where groundwaters contain concentrations of substances in excess of the water quality standards established under this Subchapter;

(2) Where a statutory variance has been granted as provided in Rule .0114 of this Subchapter; or

(3) Where an alternate contaminant concentration has been established by the director.

Statutory Authority G.S. 143-214.1; 143-215.3(a)(1); 143B-282(2).

.0105 ADOPTION BY REFERENCE (REPEALED)

Statutory Authority G.S. 143-214.1.

.0106 CORRECTIVE ACTION

Any person conducting, permitting or controlling an activity which causes an increase in the concentration of a substance above the water quality standard:

(1) as the result of activities not specifically permitted by the state, shall assess the cause, significance and extent of the violation of water quality standards; submit a plan for eliminating the source of contamination and for restoration; and implement the plan in accordance with a special order;

(2) at or beyond the review boundary, shall:

(a) demonstrate, through predictive calculations or modeling, that natural site conditions, facility designs and operation controls will prevent a violation of standards at the compliance boundary; or

(b) submit a plan for alteration of existing site conditions, facility design or operation controls that will prevent a violation at the compliance boundary, and implement that plan upon its approval by the director.

(3) at or beyond the compliance boundary, shall, assess the cause, significance and extent of the violation of water quality standards and submit results of investigation and a plan for restoration and implement the plan in accordance with a special order.

Statutory Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

.0107 ALTERNATE CONTAMINANT CONCENTRATION

(a) If the responsible party determines that it is not feasible to restore contaminated groundwaters to the level of the standards, then the responsible party may apply to the director for a Special Order by Consent and submit a proposal for alternate contaminant concentrations. The proposal shall address the potential for adverse effects on human health and the environment through consideration of:

(1) the physical and chemical characteristics of the contaminants, including the potential for migration;

(2) the hydrogeological characteristics of the impacted area and surrounding land;

(3) the rate and direction of groundwater flow;
(4) the proximity and withdrawal rates of local groundwater users;
(5) the current and predictable uses of groundwater in the area;
(6) the existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;
(7) the proximity of the contaminant plume to hydraulically connected surface water;
(8) the current and predictable uses of surface water hydraulically connected to the contamination plume, including existing quality of those waters, and any water quality standards established for those surface waters;
(9) the potential for health risks caused by human exposure to the contaminants;
(10) the potential damage to wildlife, crops, vegetation and physical structures caused by exposure to the contaminants; and
(11) the persistence and permanence of the potential adverse effects.

(b) In determining the feasibility of groundwater quality restoration activities and evaluating the proposal for alternate contaminant concentrations, the director shall consider the extent of any threat to human health or safety, the extent of existing and potential damage to the environment, the total cost of the restoration involved, the marginal or incremental cost of the restoration required, the economic benefit accruing to the responsible party as a result of the violation, technological constraints which might, prevent restoration and the public and economic benefit of requiring such restoration. Upon the director's approval of the proposal, alternate contaminant concentrations will be authorized by a special order.

(c) In making the determination required in Paragraph (b) of this Rule, the director shall request public comments, in accordance with the provision of G.S. 143-215.4(b), prior to approving or authorizing alternate contaminant concentrations; provided that, the director, at any time and in his discretion, may authorize the responsible party to make preliminary studies or investigations which will result in a proposal for alternate contaminant concentrations, without receipt of public comments.

Statutory Authority G.S. 143-214.1; 143-215.3(a)(1); 143B-282(2).

.0108 COMPLIANCE BOUNDARY

(a) For disposal systems permitted prior to December 30, 1983, the compliance boundary is established at a horizontal distance of 500 feet from the waste boundary or at the property boundary, whichever is closer to the source.

(b) For disposal systems permitted on or after December 30, 1983, a compliance boundary shall be established 250 feet from the waste boundary, or 50 feet within the property boundary, whichever point is closer to the source.

(c) The boundary shall form a vertical plane extending from the water table to the maximum depth of saturation.

(d) For ground absorption sewage treatment and disposal systems which are permitted under 10 NCAC 10A .1900, the compliance boundary shall be established at the property boundary.

(e) A contravention of the applicable water quality standard within the compliance boundary shall not be subject to the penalty provisions applicable under G.S. 143-215.6(a)(1)a.

(f) The director shall require:
(1) that permits for all activities governed by G.S. 143-215.1 will be written to protect the level of groundwater quality, established by applicable standards, at the compliance boundary;
(2) that recommendations be made to protect the level of standards at the compliance boundary on all permit applications received for review from other state agencies;
(3) that necessary groundwater quality monitoring shall be conducted within the compliance boundary; and
(4) that a contravention of standards within the compliance boundary be remedied through clean-up, recovery, containment, or other response when any of the following conditions occur:
(A) a violation of any standard in adjoining classified waters occurs or can be reasonably predicted to occur considering hydrogeologic conditions, modeling, or other available evidence;
(B) an imminent hazard or threat to the public health or safety exists or can be predicted; or
(C) a violation of any standard in groundwater occurring in the bedrock other than limestones found in the coastal plain sediments.

Statutory Authority G.S. 143-215.1(b); 143-215.3(a)(1); 143B-282.

.0109 REVIEW BOUNDARY

A review boundary is established around disposal systems at the mid-point between the compliance boundary and the waste boundary. Where the groundwater quality standards are reached or exceeded at the review boundary as determined by monitoring, the permittee shall take action in accordance with the provisions of Rule .0106(a)(2) of this Subchapter.

Statutory Authority G.S. 143-215.1(b); 143-215.3(a)(1); 143B-282.

.0110 DELEGATION

(a) The director is delegated the authority to enter into consent special orders under G.S. 143-215.2 for violations of the water quality standards.

(b) The director is delegated the authority to issue a proposed special order without the consent of the person affected and to notify the affected person of the procedure set out in G.S. 150B-23 to contest the proposed special order.

Statutory Authority G.S. 143-215.2; 143-215.3(a)(1).

.0111 MONITORING

(a) Any person subject to the provisions of G.S. 143-215.1 who causes, permits or has control over any discharge of waste, shall install a monitoring system, at such locations, and in such detail, as the director may require to evaluate the efficiency of the treatment facility and the effects of the discharge upon the waters of the state.

(b) Monitoring systems shall be operated in a manner that will not result in the contamination of adjacent groundwaters of a higher quality.

(c) Monitoring shall be conducted and results reported in a manner and at a frequency specified by the director.

Statutory Authority G.S. 143-215.1(b); 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.68; 143B-282.

.0112 REPORTS

Any person subject to the provisions of G.S. 143-215.1 and to the requirements for corrective action specified in Rule .0106 of this Subchapter shall submit to the director, in such detail as the director may require, a written report that describes:

(1) the results of the investigation specified in Paragraphs (1) and (3) of Rule .0106, including but not limited to:
  (a) a description of the sampling procedures followed and methods of chemical analyses used; and
  (b) all technical data utilized in support of any conclusions drawn or determinations made.
(2) the results of the predictive calculations or modeling, including a copy of the calculations or model runs and all supporting technical data, used in the demonstration required in Paragraph (2) of Rule .0106; and
(3) the proposed methodology and timetable associated with the restoration of groundwater quality for those situations identified in Paragraphs (1) and (3) of Rule .0106.

Statutory Authority G.S. 143-215.1(b); 143-215.3(a)(1); 143-215.65; 143-215.68; 143B-282.

.0113 ANALYTICAL PROCEDURES

Tests or analytical procedures to determine compliance or noncompliance with the water quality standards established in Rule .0202 of this Subchapter will be in accordance with:

(1) The following methods or procedures for substances where the selected method or procedure provides a method detection limit value at or less than the standard:
  (a) Standard methods for the Examination of Water and Wastewater, 16th Edition, 1985, published jointly by American Public Health Association, American Water Works Association and Water Pollution Control Federation;
  (b) Methods for Chemical Analysis of Water and Waste, 1979, U.S. Environmental Protection Agency publication number EPA-600/4-79-020, as revised March 1983;
  (c) Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods, 3rd Edition, 1986, U.S. Environmental Protection Agency publication number SW-846;
  (d) Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Federal Register Vol. 49, No. 209, 40 CFR Part 136, October 26, 1984;
  (e) Methods or procedures approved by letter from the director upon application by the regulated source.
(2) A method or procedure approved by the director for substances where the standard is less than the limit of detectibility.

Statutory Authority G.S. 143-215.3(a)(1); 143B-282.

.0114 VARIANCE

(a) The commission, on its own initiative or pursuant to a request under G.S. 143-215.3(e),

may grant variances to water quality standards and the compliance boundary. Persons subject to the provisions of G.S. 130A-294 may apply for a variance under this Section.

(b) Requests for variances are filed by letter from the applicant to the Environmental Management Commission. The application should be mailed to the chairman of the commission in care of the Director, Division of Environmental Management, Post Office Box 27687, Raleigh, N.C. 27611.

(c) The application should contain the following information:

(1) Applications filed by counties or municipalities must include a resolution of the County Board of Commissioners or the governing board of the municipality requesting the variance from water quality standards which apply to the area for which the variance is requested.

(2) A description of the past, existing or proposed activities or operations that have or would result in a discharge of contaminants to the groundwaters.

(3) Description of proposed area for which a variance is requested. A detailed location map, showing orientation of the facility, potential for groundwater contaminant migration, as well as the area covered by the variance request, with reference to at least two geographic references (numbered roads, named streams/rivers, etc.) must be included.

(4) Supporting information to establish that the variance will not endanger the public health and safety, including health and environmental effects with exposure to the groundwater contaminants. (Location of wells and other water supply sources including details of well construction within 1/2 mile of site must be shown on a map).

(5) Supporting information to establish that standards cannot be achieved by providing the best available technology economically reasonable. This information must identify specific technology considered, changes in quality of the contaminant plume as demonstrated through predictive calculations approved by the director, and technological constraints which limit restoration to the level of the proposed alternate contaminant concentrations.

(6) Supporting information to establish that compliance would produce serious hardship on the applicant.

(7) Supporting information that compliance would produce serious hardship without equal or greater public benefit.

(8) A copy of any Special Order that was issued in connection with the contaminants in the proposed area and supporting information that applicant has complied with the Special Order and any alternate contaminant concentrations contained therein.

(d) Upon receipt of the application, the director will review it for completeness and request additional information if necessary. When the application is complete, the director shall give public notice of the application and schedule the matter for a public hearing in accordance with G.S. 143-215.4(d) and the procedures set out below.

(e) Notice of Public Hearing.

(1) Notice of public hearing on any variance application shall be circulated in the geographical areas of the proposed variance by the director at least 30 days prior to the date of the hearing:

(A) by publishing the notice one time in a newspaper having general circulation in said county;

(B) by mailing to the North Carolina Department of Human Resources, Division of Health Services, and appropriate local health agency;

(C) by mailing to any other federal, state or local agency upon request;

(D) by mailing to the local governmental unit or units having jurisdiction over the geographic area covered by the variance;

(E) by mailing to any property owner within the proposed area of the variance, as well as any property owners adjacent to the site covered by the variance; and

(F) by mailing to any person or group upon request.

(2) The contents of public notice of any hearing shall include at least the following:

(A) name, address, and phone number of agency holding the public hearing;

(B) name and address of each applicant whose application will be considered at the meeting;

(C) brief summary of the proposed standard variance or modification of the perimeter of compliance being requested;

(D) geographic description for a proposed area for which a variance is requested;

(E) brief description of the activities or operations which have or will result in the discharge of contaminants to the groundwaters described in the variance application;

(F) a brief reference to the public notice issued for each variance application;

(G) information regarding the time and location for the hearing;

(H) the purpose of the hearing;

(I) address and phone number of premises at which interested persons may obtain further information, request a copy of each application, and inspect and copy forms and related documents; and

(J) a brief description of the nature of the hearing including the rules and procedures to be followed. The notice shall also state that additional information is on file with the director and may be inspected at any time during normal working hours. Copies of the information on file will be made available upon request and payment of cost or reproduction.

(f) All comments received within 30 days following the date of the public hearing shall be made part of the application file and shall be considered by the commission prior to taking final action on the application.

(g) In determining whether to grant a variance, the commission shall consider whether the applicant has complied with any alternate contaminant concentrations established pursuant to Rule .0107 of this Section and has complied with any Special Order issued under G.S. 143-215.2.

(h) If the commission's final decision is unacceptable, the applicant may file a petition for a contested case in accordance with Chapter 150B of the General Statutes. If the petition is not filed within 30 days, the decision on the variance shall be final and binding.

(i) A variance shall not operate on a defense to an action at law based upon a public or private nuisance theory or any other cause of action.

Statutory Authority G.S. 143-215.3(a)(1); 143-215.3 (a) (3); 143-215.3 (a) (4); 143-215.3 (e); 143-215.4.

SECTION .0200 - CLASSIFICATIONS AND WATER QUALITY STANDARDS

.0201 CLASSIFICATIONS

The classifications which may be assigned to the ~~underground waters~~ groundwaters will be those specified in the following series of classifications:

(1) Class GA waters; usage and occurrence:

(a) Best Usage. ~~of Waters.~~ Existing or potential source of drinking water supply for humans. ~~drinking, culinary use, and food processing without treatment, except where necessary to correct naturally occurring conditions.~~

(b) Conditions Related to Best Usage. This class is intended for those groundwaters in which chloride concentrations are equal to or less than 250 mg/l, and which are considered suitable ~~safe~~ for drinking, but which may require treatment to improve quality related to natural conditions. ~~culinary use, and food processing without treatment, but which may require disinfection or other treatment when necessary to reduce naturally occurring concentrations in order not to exceed the maximum concentrations specified in Rule .0202 of this Section.~~

(c) Occurrence. ~~At depths greater than 20 feet below land surface and in~~ In the saturated zone. ~~above a depth of 20 feet where these waters are a principal source of potable water supply.~~

(2) Class GSA waters; usage and occurrence:

(a) Best Usage. Existing or potential source of water supply for potable mineral water ~~culinary use, food processing,~~ and conversion to fresh waters. ~~by treatment.~~

(b) Conditions Related to Best Usage. This class is intended for those groundwaters in which ~~naturally occurring~~ the chloride concentrations due to natural conditions is in excess of ~~are greater than~~ 250 mg/l, ~~and~~ but which ~~are~~ otherwise may be considered ~~safe~~ suitable for use as potable ~~mineral~~ water after treatment to reduce concentrations of naturally occurring substances. ~~culinary use, and food processing without treatment but may require disinfection or other treatment when necessary to reduce naturally occurring concentrations in order not to exceed the maximum concentrations specified in Rule .0202 of this Section.~~

(c) Occurrence. ~~At depths greater than 20 feet below land surface and in~~ In the saturated zone. ~~above a depth of 20 feet where these waters are a principal source of potable mineral water supply.~~

~~(3) Class GB waters; usage and occurrence:~~

~~(a) Best Usage. Source of recharge to surface waters and groundwaters occurring below a depth of 20 feet, source of treatable water supply.~~

~~(b) Conditions Related to Best Usage. Precipitation is the principal source of recharge to the saturated zone. The water in the saturated zone above a depth of 20 feet is of drinking water quality in much of the state. However, the upper 20 feet of the earth's surface is generally very vulnerable to pollution from man's activities, and should be considered a cycling zone for removing most or all of the~~

~~contaminants from the water by adsorption, absorption, filtration or other natural treatment processes. In recognition of this fact, this classification is intended for those fresh groundwaters occurring at depths less than 20 feet below land surface that are of suitable quality for recharge to the deeper aquifers and surface waters of the state.~~

~~(c) Occurrence. Above a depth of 20 feet below land surface.~~

~~(4) Class GSB waters; usage and occurrence:~~

~~(a) Best Usage. Source of recharge to saline surface waters and saline groundwaters occurring below a depth of 20 feet, source of treatable water supply.~~

~~(b) Conditions Related to Best Usage. Precipitation is the principal source of recharge to the saturated zone. The water in the saturated zone above a depth of 20 feet of the earth's surface is generally very vulnerable to pollution from man's activities and should be considered a cycling zone for removing most or all of the contaminants from the water by adsorption, absorption, filtration or other natural treatment processes. In recognition of this fact, this classification is intended for those saline groundwaters occurring at depths less than 20 feet below land surface that are of suitable quality for recharge to the deeper aquifers and surface waters of the state.~~

~~(c) Occurrence. Above a depth of 20 feet below land surface.~~

(3)~~(5)~~ Class GC waters: usage and occurrence:

(a) Best Usage. ~~of Waters.~~ Source of water supply for purposes other than ~~human~~ drinking. ~~culinary use, or food processing.~~

(b) Conditions Related to Best Usage. This class includes those ~~waters~~ groundwaters that do not meet the quality criteria ~~requirements~~ of waters having a higher classification and for which ~~measures~~ efforts to ~~upgrade~~ restore in-situ to a higher classification would not be ~~technically~~ technologically ~~or economically not be~~ feasible, or not in the best interest of the public, ~~or~~ and for which ~~maximum feasible restoration has been completed.~~ treatment at the point of use to a quality suitable for drinking is not technologically feasible.

(c) Occurrence. In the saturated zone, as determined by the commission on a case by case basis.

Statutory Authority G.S. 143-214.1; 143B-282(2).

.0202 WATER QUALITY STANDARDS

(a) The water quality standards for the ~~underground waters~~ groundwaters of the state are those specified in this Rule. They are the maximum allowable concentrations resulting from any discharge of contaminants to the land or waters of the state, which may be tolerated without creating a threat to human health or which would otherwise render the groundwater unsuitable for its intended best usage. Where groundwater quality standards have been exceeded due to man's activities, restoration efforts shall be designed to restore groundwater quality to the level of the standard or as closely there to as is practicable. In recognition of circumstances or conditions which may prevent restoration to the level of the standards, the director may authorize alternate contaminant concentrations in accordance with Rule .0107 of this Subchapter. ~~These standards are the maximum levels of contamination that are permitted under these Regulations. It is the policy of the EMC, however, to protect and maintain the existing quality of the groundwaters where that quality is better than the assigned standards. Therefore, the increase in any constituent for which a standard is specified to a concentration of 50 percent of the standard may result in review or modification of an existing permit, requirements for additional monitoring, or issuance of a special order where a violation of standards may be predicted.~~

(b) The standards will not be considered violated when concentrations of substances which exceed the established limits are attributable to natural conditions.

(c) Maximum concentrations for substances are established as the lesser of:

(1) Health advisory based on the no-observed-adverse-effect-level (NOAEL) or lowest-observed-adverse-effect-level (LOAEL);

(2) Concentration which corresponds to an incremental lifetime cancer risk of $1x10^{-6}$

(3) Taste threshold limit value;

(4) Odor threshold limit value;

(5) National primary drinking water standard; or

(6) National secondary drinking water standard.

(d) The maximum concentrations for contaminants specified in Paragraphs (h) and (i) of this Rule, shall be as listed.

(e) Maximum concentrations for substances not specified in Paragraphs (h) and (i) of this Rule, shall be determined by the director in ac-

cordance with the procedures established in Paragraph (c) of this Rule. Where available data does not enable development of maximum concentrations in accordance with established procedures, the director shall consider appropriate U.S. Environmental Protection Agency data and other published health effects data in developing maximum concentrations.

(f) Where the maximum concentration of a substance is less than the limit of detectability, the substance shall not be permitted in detectable concentrations.

(g) Where two or more substances exist in combination, the director shall consider the effects of chemical interactions and may establish maximum concentrations at values less than those established in accordance with Paragraphs (d) and (e) of this Rule. In the absence of information to the contrary, the carcinogenic risks associated with carcinogens present shall be considered additive and the toxic effects associated with non-carcinogens present shall also be considered additive.

(h) ~~(b)~~ Class GA Standards. ~~Waters. The maximum allowable contaminant levels for toxic and deleterious substances are those concentrations specified in Subparagraphs (1) - (31) of this Paragraph. For substances not specified, the standard is the naturally occurring concentration as determined by the director. Synthetic, man-made, or other substances that do not naturally occur are prohibited.~~ Where not otherwise indicated, the standard refers to the total concentration in milligrams per liter of any constituent.

~~(1) where naturally occurring concentrations exceed the established standard, the standard will be the naturally occurring concentration as determined by the director;~~

(1) acrylamide (propenamide): 0.00001
(2) alachlor: 0.00015
(3) aldicarb (TEMIK): 0.009
(4)~~(10)~~ arsenic: 0.05 ~~mg/l;~~
(5)~~(11)~~ barium: 1.0 ~~mg/l;~~
(6) benzene: 0.0007 .005
(7) bromoform (tribromomethane): 0.00019
(8)~~(12)~~ cadmium: ~~.010 mg/l~~ 0.005
(9) carbofuran: 0.036
(10) carbon tetrachloride: 0.0003 .005
(11) chlordane: 2.7×10^{-5}
(12)~~(27)~~ chloride: 250.0 ~~mg/l~~
(13) chlorobenzene: 0.3
(14) chloroform (trichloromethane): 0.00019
(15) 2-chlorophenol: 0.0001
(16)~~(13)~~ chromium: 0.05 ~~mg/l~~
(17) cis-1,2-dichloroethene: 0.07
(18)~~(2)~~ ~~total~~ coliform organisms (total): 1 per 100 milliliters
(19)~~(28)~~ color: ~~less than~~ 15 color units
(20) copper: 1.0
(21) cyanide: 0.154
(22)~~(7)~~ 2, 4-D (2,4-dichlorophenoxy acetic acid): 0.07 ~~0.1 mg/l;~~
(23) 1,2-dibromo-3-chloropropane: 2.5×10^{-5}
(24) dichlorodifluoromethane (Freon-12; Halon): 0.00019
(25) 1,2-dichloroethane (ethylene dichloride): 0.00038 .005
(26) 1,1-dichloroethylene (vinylidene chloride): 0.007 .007
(27) 1,2-dichloropropane: 0.00056
(28) p-dioxane (1,4-diethylene dioxide): 0.007
(29) dioxin: 2.2×10^{-10}
(30) ~~total~~ dissolved solids (total): 500 ~~mg/l; and~~
(31)~~(3)~~ endrin: 0.0002 ~~mg/l~~
(32) epichlorohydrin (1-chloro-2,3-epoxypropane): 0.00354
(33) ethylbenzene: 0.029
(34) ethylene dibromide (EDB; 1,2-dibromoethane): 0.05×10^{-5}
(35) ethylene glycol: 7.0
(36)~~(20)~~ flouride: 2.0 ~~1.5 mg/l;~~
(37) foaming agents: 0.5
(38)~~(22)~~ gross alpha particle activity (including radium-226 but excluding radon and uranium): 15 pCi/l
~~(23) gross beta particle activity: 50 pCi/l;~~
(39) heptachlor: 7.6×10^{-5}
(40) heptachlor epoxide: 3.8×10^{-5}
(41) hexachlorobenzene (perchlorobenzene): 0.00002
(42) n-hexane: 14.3
(43)~~(24)~~ iron: 0.3 ~~0.30 mg/l;~~
(44)~~(14)~~ lead: 0.05 ~~mg/l;~~
(45)~~(4)~~ lindane: 2.65×10^{-5} ~~.004 mg/l;~~
(46)~~(25)~~ manganese: 0.05 ~~mg/l;~~
(47)~~(15)~~ mercury: 0.0011 ~~mg/l;~~
(48) metadichlorobenzene (1,3-dichlorobenzene): 0.62
(49)~~(5)~~ methoxychlor: 0.1 ~~mg/l;~~
(50) methylene chloride (dichloromethane): 0.005
(51) methyl ethyl ketone (MEK; 2-butanone): 0.17
(52) nickel: 0.15
(53)~~(16)~~ nitrate: (as N) 10.0 ~~mg/l;~~
(54)~~(17)~~ nitrite: (as N) 1.0 ~~mg/l;~~
(55) orthodichlorobenzene (1,2-dichlorobenzene): 0.62
(56) oxamyl: 0.175
(57) paradichlorobenzene (1,4-dichlorobenzene): 0.0018 0.075
(58) pentachlorophenol: 0.22
(59)~~(26)~~ pH: 6.5 - 8.5 ~~no increase from naturally occurring pH values in acidity below or increase in alkalinity above 7;~~

~~(29) phenol: not greater than 1.0 ug/l;~~
(60)~~(21)~~ ~~combined~~ radium-226 and radium-228 (combined): 5 pCi/l
(61)~~(18)~~ selenium: 0.01 ~~mg/l;~~
(62)~~(19)~~ silver: 0.05 ~~mg/l;~~
(63) styrene (ethenylbenzene): 1.4×10^{-5}
(64) sulfate: 250.0
~~(31) thermal; not greater than 30 degrees Fahrenheit variance from the naturally occurring level as determined by the director;~~
(65) tetrachloroethylene (perchloroethylene; PCE): 0.0007
(66) toluene (methylbenzene): 1.0
(67)~~(6)~~ toxaphene: 3.1×10^{-5} ~~.005 mg/l;~~
(68)~~(8)~~ 2, 4, 5,-TP (Silvex): 0 .01 ~~mg/l;~~
~~(9) total trihalomethanes: 0.10 mg/l;~~
(69) trans-1,2-dichloroethene: 0.07 .005
(70) 1,1,1-trichloroethane (methyl chloroform): 0.2 0.2
(71) trichloroethylene (TCE): 0.0028 .005 0
(72) vinyl chloride (chloroethylene): 1.5×10^{-5} .0000015 .002
(73) xylenes (o-, m-, and p-): 0.4
(74) zinc: 5.0

(i) ~~(c)~~ Class GSA ~~Waters.~~ Standards. The standards for this class shall be the same as those for Class GA except as follows:
(1) chloride: allowable increase not to exceed 100 percent of the natural quality concentration; and
(2) total dissolved solids: 1000 mg/l.

~~The maximum allowable contaminant levels for toxic and deleterious substances are those concentrations specified Subparagraphs (1) - (31) of this Paragraph. For substances not specified, the standard is the naturally occurring concentration as determined by the director. Synthetic, man-made, or other substances that do not naturally occur are prohibited. Where not otherwise indicated, the standard refers to the total concentration of any constituent.~~
~~(1) where naturally occurring concentrations exceed the established standard, the standard will be the naturally occurring concentration as determined by the director;~~
~~(2) total coliform: 1 per 100 milliliters;~~
~~(3) endrin: .0002 mg/l;~~
~~(4) lindane: .004 mg/l;~~
~~(5) methoxychlor: 0.1 mg/l;~~
~~(6) toxaphene: .005 mg/l;~~
~~(7) 2,4,D: 0.1 mg/l;~~
~~(8) 2,4,5, TP Silvex .01 mg/l;~~
~~(9) total trihalomethanes: 0.10 mg/l;~~
~~(10) arsenic: .05 mg/l;~~
~~(11) barium: 1.0 mg/l;~~
~~(12) cadmium: .010 mg/l;~~
~~(13) chromium: .05 mg/l;~~
~~(14) lead: .05 mg/l;~~
~~(15) mercury: .002 mg/l;~~
~~(16) nitrate: (as N) 10.0 mg/l;~~
~~(17) nitrite: (as N) 1.0 mg/l;~~
~~(18) selenium: .01 mg/l;~~
~~(19) silver: .05 mg/l;~~
~~(20) fluoride: 1.5 mg/l;~~
~~(21) combined radium - 226 and radium - 228: 5 pCi/l;~~
~~(22) gross alpha particle activity: 15 pCi/l;~~
~~(23) gross beta particle activity: 50 pCi/l;~~
~~(24) iron: 0.30 mg/l;~~
~~(25) manganese: .05 mg/l;~~
~~(26) pH: No increase from naturally occurring pH values in acidity below or increase in alkalinity above 7;~~
~~(27) chloride: allowable increase not to exceed 100 percent of the naturally occurring chloride concentration;~~
~~(28) color less than 15 units;~~
~~(29) phenol: not greater than 1.0 ug/l;~~
~~(30) total dissolved solids: 1000 mg/l; and~~
~~(31) thermal: not greater than 30 degrees Fahrenheit variance from the naturally occurring level as determined by the director.~~

~~(d) Class GB Waters. No increase above the naturally occurring concentration of any toxic or deleterious substance unless it can be shown, upon request, to the satisfaction of the director that the increase:~~
~~(1) will not cause or contribute to the contravention of water quality standards in adjoining waters of a different class;~~
~~(2) will not accumulate in a manner such that unusual or different hydrological conditions may cause a threat to public health or the environment; and~~
~~(3) will not cause an existing or potential water supply to become unsafe or unsuitable for its current use.~~

~~(e) Class GSB Waters. No increase above the naturally occurring concentration of any toxic or deleterious substance unless it can be shown, upon request, to the satisfaction of the director that the increase:~~
~~(1) will not cause or contribute to the contravention of water quality standards in adjoining waters of a different class;~~
~~(2) will not accumulate in a manner such that unusual or different hydrological conditions may cause a threat to public health or the environment; and~~
~~(3) will not cause an existing or potential water supply to become unsafe or unsuitable for its current use.~~

(d) ~~(f)~~ Class GC Waters. ~~All chemical, radioactive, biological, taste producing, odor producing, thermal, and other toxic or deleterious~~

~~substances shall not exceed the concentration existing at the time of classification.~~

(1) The concentrations of substances which, at the time of classification exceed water quality standards, shall not be permitted to increase. For all other substances, concentrations shall not be caused or permitted to exceed the established standard.

(2) The concentrations of substances which, at the time of classification, exceed water quality standards shall not cause or contribute to the contravention of groundwater or surface water quality standards in adjoining waters of a different class.

(3) Concentrations of specific substances, which exceed the established standard at the time of classification, shall be listed in Section .0300 of this Subchapter.

Statutory Authority G.S. 143-214.1; 143B-282(2).

SECTION .0300 - ASSIGNMENT OF UNDERGROUND WATER CLASSIFICATIONS

.0301 CLASSIFICATIONS: GENERAL

(a) Schedule of Classifications. The classifications are based on the quality, occurrence and existing or contemplated best usage of the ~~underground waters~~ groundwaters as established in Section .0200 of this Subchapter and are assigned statewide except where supplemented or supplanted by specific classification assignments by major river basins.

(b) Classifications and Water Quality Standards. The classifications and standards assigned to the ~~underground waters~~ groundwaters are denoted by the letters GA, GSA, ~~GB, GSB,~~ or GC. These classifications refer to the classifications and standards established by ~~15 NCAC 2L, "Classifications and Standards Applicable to the Underground Waters of North Carolina."~~ Rule .0201 of this Subchapter.

Statutory Authority G.S. 143-214.1; 143-282(2).

.0302 STATEWIDE

~~(a)~~ The classifications assigned to the ~~underground waters~~ groundwaters located within the boundaries or under the extraterritorial jurisdiction of the State of North Carolina are:

(1) Class GA Waters. Those ~~underground waters~~ groundwaters in the state naturally containing ~~less than~~ 250 mg/l or less of chloride ~~and occurring at depths greater than 20 feet below land surface~~ are classified GA.

~~(2) Class GB Waters. Those underground waters in the state naturally containing less than 250 mg/l chloride concentration and occurring between land surface and a depth of 20 feet are classified GB.~~

(2)~~(3)~~ Class GSA Waters. Those ~~underground waters~~ groundwaters in the state naturally containing greater than 250 mg/l chloride ~~concentration and occurring at depths greater than 20 feet below land surface~~ are classified GSA.

~~(4) Class GSB Waters. Those underground waters in the state naturally containing greater than 250 mg/l chloride concentration and occurring between land surface and a depth of 20 feet are classified GSB.~~

(3)~~(5)~~ Class GC Waters. Those ~~underground waters~~ groundwaters assigned the classification GC in Rules .0303 - .0318 of this Section.

Statutory Authority G.S. 143-214.1; 143-282(2).

.0319 RECLASSIFICATION

The ~~underground water~~ groundwater classifications as assigned may be revised by the ~~EMC~~ commission following public notice and subsequent public hearing. Changes may be to a higher or lower classification. Reclassification requests may be submitted to the Director. ~~of the Division of Environmental Management.~~

Statutory Authority G.S. 143-214.1; 143-215.3(e); 143B-282(2).

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Notice is hereby given in accordance with G.S. 150B-12 that the Division of Coastal Management intends to amend regulation cited as 15 NCAC 7H .0104.

The proposed effective date of this action is November 1, 1988.

The public hearing will be conducted at 10:00 a.m. on July 28, 1988 at Duke Marine Lab Auditorium, Pivers Island, Beaufort, North Carolina.

Comment Procedures: All persons interested in this matter are invited to attend the public hearing. The Coastal Management Division will receive written comments up to the date of the hearing. Any person desiring to present lengthy comments is requested to submit a written statement for inclusion in the record of proceedings at the public hearing. Additional information concerning the hearing or the proposal may be obtained by con-