

15A NCAC 02B .0220 TIDAL SALT WATER QUALITY STANDARDS FOR CLASS SC WATERS

In addition to the standards set forth in Rule .0208 of this Section, the following water quality standards shall apply to all Class SC waters. Additional standards applicable to other tidal salt water classifications are specified in Rules .0221 and .0222 of this Section.

- (1) The best usage of waters classified as SC shall be aquatic life propagation, survival, and maintenance of biological integrity (including fishing, fish, and Primary Nursery Areas (PNAs)); wildlife; secondary contact recreation as defined in Rule .0202 in this Section; and any usage except primary contact recreation or shellfishing for market purposes. All saltwaters shall be classified to protect these uses at a minimum.
- (2) The best usage of waters classified as SC shall be maintained as specified in this Rule. Any source of water pollution that precludes any of these uses on either a short-term or a long-term basis shall be deemed to violate a water quality standard;
- (3) Chlorophyll a (corrected): not greater than 40 ug/l in sounds, estuaries, and other waters subject to growths of macroscopic or microscopic vegetation. The Commission or its designee may prohibit or limit any discharge of waste into surface waters if the Director determines that the surface waters experience or the discharge would result in growths of microscopic or macroscopic vegetation such that the standards established pursuant to this Rule would be violated or the intended best usage of the waters would be impaired;
- (4) Cyanide: 1 ug/l;
- (5) Dissolved oxygen: not less than 5.0 mg/l, except that swamp waters, poorly flushed tidally influenced streams or embayments, or estuarine bottom waters may have lower values if caused by natural conditions;
- (6) Enterococcus, including *Enterococcus faecalis*, *Enterococcus faecium*, *Enterococcus avium* and *Enterococcus gallinarum*: not exceed a geometric mean of 35 enterococci per 100 ml based upon a minimum of five samples taken over a 30-day period. For the purposes of beach monitoring and notification, "Coastal Recreational Waters Monitoring, Evaluation and Notification" regulations (15A NCAC 18A .3400), available free of charge at: <http://www.ncoah.com/>, are incorporated by reference including subsequent amendments and editions;
- (7) Floating solids, settleable solids, or sludge deposits: only such amounts attributable to sewage, industrial wastes, or other wastes as shall not make the waters unsafe or unsuitable for aquatic life and wildlife, or impair the waters for any designated uses;
- (8) Gases, total dissolved: not greater than 110 percent of saturation;
- (9) Metals:
 - (a) With the exception of mercury and selenium, acute and chronic tidal salt water quality standards for metals shall be based upon measurement of the dissolved fraction of the metals. Mercury and selenium shall be based upon measurement of the total recoverable metal;
 - (b) With the exception of mercury and selenium, acute and chronic tidal saltwater quality aquatic life standards for metals listed in this Sub-Item shall apply as a function of the pollutant's water effect ratio (WER). The WER shall be assigned a value equal to one unless any person demonstrates to the Division in a permit proceeding that another value is developed in accordance with the "Water Quality Standards Handbook: Second Edition" published by the US Environmental Protection Agency (EPA-823-B-12-002). Alternative site-specific standards may also be developed when any person submits values that demonstrate to the Commission that they were derived in accordance with the "Water Quality Standards Handbook: Second Edition, Recalculation Procedure or the Resident Species Procedure."
 - (c) Acute and chronic tidal salt water quality metals standards shall be as follows:
 - (i) Arsenic, acute: WER· 69 ug/l;
 - (ii) Arsenic, chronic: WER· 36 ug/l;
 - (iii) Cadmium, acute: WER· 33 ug/l;
 - (iv) Cadmium, chronic: WER· 7.9 ug/l;
 - (v) Chromium VI, acute: WER· 1100 ug/l;
 - (vi) Chromium VI, chronic: WER· 50 ug/l;
 - (vii) Copper, acute: WER· 4.8 ug/l;
 - (viii) Copper, chronic: WER· 3.1 ug/l;

- (ix) Lead, acute: WER· 210 ug/l;
 - (x) Lead, chronic: WER· 8.1 ug/l;
 - (xi) Mercury, total recoverable, chronic: 0.025 ug/l;
 - (xii) Nickel, acute: WER· 74 ug/l;
 - (xiii) Nickel, chronic: WER· 8.2 ug/l;
 - (xiv) Selenium, total recoverable, chronic: 71 ug/l;
 - (xv) Silver, acute: WER· 1.9 ug/l;
 - (xvi) Silver, chronic: WER· 0.1 ug/l;
 - (xvii) Zinc, acute: WER· 90 ug/l; and
 - (xviii) Zinc, chronic: WER· 81 ug/l;
- (d) Compliance with acute instream metals standards shall only be evaluated using an average of two or more samples collected within one hour. Compliance with chronic instream metals standards shall only be evaluated using averages of a minimum of four samples taken on consecutive days, or as a 96-hour average;
- (10) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, aquatic life, and wildlife or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses. For the purpose of implementing this Rule, oils, deleterious substances, or colored or other wastes shall include substances that cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, as described in 40 CFR 110.3, incorporated by reference including any subsequent amendments and editions. This material is available free of charge at <https://www.govinfo.gov>.
- (11) Pesticides:
- (a) Aldrin: 0.003 ug/l;
 - (b) Chlordane: 0.004 ug/l;
 - (c) DDT: 0.001 ug/l;
 - (d) Demeton: 0.1 ug/l;
 - (e) Dieldrin: 0.002 ug/l;
 - (f) Endosulfan: 0.009 ug/l;
 - (g) Endrin: 0.002 ug/l;
 - (h) Guthion: 0.01 ug/l;
 - (i) Heptachlor: 0.004 ug/l;
 - (j) Lindane: 0.004 ug/l;
 - (k) Methoxychlor: 0.03 ug/l;
 - (l) Mirex: 0.001 ug/l;
 - (m) Parathion: 0.178 ug/l; and
 - (n) Toxaphene: 0.0002 ug/l;
- (12) pH: shall be between 6.8 and 8.5, except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions;
- (13) Phenolic compounds: only such levels as shall not result in fish-flesh tainting or impairment of other best usage;
- (14) Polychlorinated biphenyls: (total of all PCBs and congeners identified) 0.001 ug/l;
- (15) Radioactive substances, based on at least one sample collected per quarter:
- (a) Combined radium-226 and radium-228: the average annual activity level for combined radium-226, and radium-228 shall not exceed five picoCuries per liter;
 - (b) Alpha Emitters: the average annual gross alpha particle activity (including radium-226, but excluding radon and uranium) shall not exceed 15 picoCuries per liter;
 - (c) Beta Emitters: the average annual activity level for strontium-90 shall not exceed eight picoCuries per liter, nor shall the average annual gross beta particle activity (excluding potassium-40 and other naturally occurring radionuclides exceed 50 picoCuries per liter, nor shall the average annual activity level for tritium exceed 20,000 picoCuries per liter;
- (16) Salinity: changes in salinity due to hydrological modifications shall not result in removal of the functions of a PNA. Projects that are determined by the Director to result in modifications of salinity such that functions of a PNA are impaired shall employ water management practices to mitigate salinity impacts;

- (17) Temperature: shall not be increased above the natural water temperature by more than 0.8 degrees C (1.44 degrees F) during the months of June, July, and August, shall not be increased by more than 2.2 degrees C (3.96 degrees F) during other months, and shall in no case exceed 32 degrees C (89.6 degrees F) due to the discharge of heated liquids;
- (18) Trialkyltin compounds: 0.007 ug/l expressed as tributyltin;
- (19) Turbidity: the turbidity in the receiving water shall not exceed 25 Nephelometric Turbidity Units (NTU); if turbidity exceeds this level due to natural background conditions, the existing turbidity level shall not be increased. Compliance with this turbidity standard shall be deemed met when land management activities employ Best Management Practices (BMPs), defined by Rule .0202 of this Section, recommended by the Designated Nonpoint Source Agency, as defined by Rule .0202 of this Section.

History Note: Authority G.S. 143-214.1; 143-215.3(a)(1);
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