Temperature: Excerpts from the Texas Surface Water Quality Standards 30 TAC §307 (revised 2010)

§307.3(a)(30) Industrial cooling impoundment - An impoundment which is owned or operated by, or in conjunction with, the water rights permittee, and which is designed and constructed for the primary purpose of reducing the temperature and removing heat from an industrial effluent.

§307.3(a)(37) Mixing zone - The area contiguous to a discharge where mixing with receiving waters takes place and where specified criteria, as listed in §307.8(b)(1) of this title (relating to Application of Standards), can be exceeded. Acute toxicity to aquatic organisms is not allowed in a mixing zone, and chronic toxicity to aquatic organisms is not allowed beyond a mixing zone.

§307.4(f) Temperature. Consistent with §307.1 of this title (relating to General Policy Statement) and in accordance with state water rights permits, temperature in industrial cooling lake impoundments and all other surface water in the state must be maintained so as to not interfere with the reasonable use of such waters. Numerical temperature criteria have not been specifically established for industrial cooling lake impoundments, which in most areas of the state contribute to water conservation and water quality objectives. The following temperature criteria, expressed as a maximum temperature differential (rise over ambient) are established except for industrial cooling impoundments, temperature elevations due to discharges of treated domestic (sanitary) effluent, and temperature elevations within designated mixing zones. The maximum temperature differentials are:

(1) freshwater streams: 5 degrees Fahrenheit (degrees F);

(2) freshwater lakes and impoundments: 3 degrees F; and

(3) tidal river reaches, bay, and gulf waters: 4 degrees F in fall, winter, and spring, and 1.5 degrees F in summer (June, July, and August).

(4) Additional temperature criteria (expressed as maximum temperatures) for classified segments are specified in Appendix A of §307.10 of this title.

§307.5(b)(6) Application of antidegradation provisions does not preclude the commission from establishing modified thermal discharge limitations consistent with the Clean Water Act, §316(a) (33 United States Code, §1326).

§307.7(b)(4)(C) Temperature. Site-specific temperature criteria are established as absolute maxima.

§307.8(a)(1) The following standards do not apply below seven-day, two-year low-flows:

(A) site-specific criteria for dissolved oxygen, pH, temperature, and numerical chronic criteria for toxic materials, as listed in Appendices A, D, and E of §307.10 of this title;

(D) maximum temperature differentials as established in §307.4(f) of this title;

§307.8(b)(1) The following portions of the standards do not apply within mixing zones:

(A) site-specific criteria, as defined in §307.7 of this title and listed in Appendices A, D, E, F, and G of §307.10 of this title;

(D) maximum temperature differentials as established in §307.4(f) of this title;

§307.8(b)(8) Mixing zones will not encompass an intake for a domestic drinking water supply. Thermal mixing zones are excepted from this provision unless elevated temperatures adversely affect drinking water treatment.

§307.8(b)(9) Mixing zones must be individually specified for all permitted domestic discharges with a permitted monthly average flow equal to or exceeding one million gallons per day and for all permitted industrial discharges to water in the state (excepting discharges that consist entirely of storm water runoff).

§307.9(c)(2) Bacterial and temperature determinations must be conducted on samples or measurements taken at or near the surface in accordance with the TCEQ *Surface Water Quality Monitoring Procedures* as amended.

§307.9(e)(5) Temperature and pH. Standards attainment must be in accordance with the TCEQ *Guidance for Assessing and Reporting Surface Water Quality in Texas* as amended.

§307.10 Appendix A - Site-specific Uses and Criteria for Classified Segments: [cover page:] ...The criteria for temperature are listed as maximum values at any site within the segment.