



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUN 30 2004

Mr. Dan Eden, Acting Deputy Director
Office of Permitting, Remediation & Registration (MC-122)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Dear Mr. Eden:

The Environmental Protection Agency (EPA) has completed its review of several provisions in the *Texas Surface Water Quality Standards* (TX WQS), which are established for the protection of human health. These standards were adopted by the Texas Natural Resource Conservation Commission, now the Texas Commission on Environmental Quality (TCEQ), on July 26, 2000, and submitted to the EPA for approval on September 27, 2000. I am pleased to inform you that the EPA is approving the provisions documented in the enclosure to this letter, pursuant to sections 303(c) and 303(i) of the Clean Water Act (CWA) and the implementing regulation at 40 CFR Part 131.

The EPA is not approving the revised definition of "surface water in the state" in the TX WQS, which includes an area out 10.36 miles into the Gulf of Mexico. Under the CWA, Texas does not have jurisdiction to regulate water standards more than three miles from the coast. Therefore, the EPA's approval of the human health provisions recognizes the state's authority under the CWA out to three miles in the Gulf of Mexico, but does not extend past that point. Beyond three miles, the EPA retains authority for CWA purposes. The EPA's approval also does not include the revised bacteria criteria or the application of the human health provisions for the portions of the Red River and Lake Texoma that are located within the state of Oklahoma. Finally, the EPA is not approving the TX WQS for those waters or portions of waters located in Indian Country, as defined in 18 U.S.C. 1151.

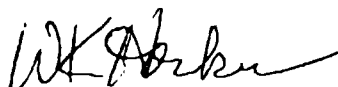
The TCEQ has adopted water quality criteria for bacteria for all coastal recreation waters. The standards for coastal recreation waters include criteria for enterococci with a geometric mean of 35/100 ml and a single sample maximum (SSM) value of 89/100 ml. The TX WQS also include criteria for fecal coliform. Because, at this time, the EPA does not believe that fecal coliform is as protective of human health as the EPA's 1986 bacteria criteria as required by CWA §303(i), the EPA contacted the TCEQ for clarification of its standards. In response, Kathleen Hartnett White, Chair of TCEQ, sent two letters dated June 16 and June 29, 2004, explaining the TCEQ's interpretation of its standards. The TCEQ acknowledged that, under these revised standards, the TCEQ has discretion to use fecal coliform as an alternative recreational indicator. At the time the TCEQ adopted these standards, in 2000, it included this discretion for three reasons: (1) the TCEQ wanted time to transition from monitoring for fecal coliform to enterococci for waters designated for contact recreation; (2) the TCEQ was

concerned about monitoring resources and laboratory equipment needed to sustain monitoring for both enterococci and fecal coliform in waters designated as oyster waters; and, (3) the TCEQ wanted to allow for the possibility that additional data and evaluation of the two indicators would show that the oyster waters criterion for fecal coliform would be a protective surrogate for enterococci. The TCEQ explained in its June 2004 letters that currently the state is monitoring for enterococci in all of its coastal recreation waters, including those designated with the oyster waters use. In addition, the TCEQ expressly recognized that, at this time, the relationship between fecal coliform and enterococci has not been demonstrated for Texas coastal waters. Finally, in the June 29, 2004, letter, Texas explicitly states that the enterococci criteria are in effect for all CWA purposes for all coastal recreation waters, including those designated with the oyster waters use. With this additional information, the EPA considers enterococci to be the applicable criteria in all coastal recreation waters for all CWA purposes.

The EPA previously approved the new and revised standards in Appendix D - Site-specific Receiving Water Assessments of the TX WQS; criteria based on seven of the water effects ratios for copper in Appendix E; the revised standards for segment 0230 - Pease River in Appendix A - Site-specific Uses and Criteria for Classified Segments; and, revised minerals criteria for several segments in Appendix A. The EPA will take separate action on the remaining new and revised parts of the TX WQS.

I would like to commend the TCEQ staff for its commitment in completing the task of reviewing and revising the state's water quality standards. We appreciate the timely adoption of *E. coli* and enterococci criteria and look forward to working with the TCEQ on protection of recreational uses. If you have any questions or concerns, please contact me at (214) 665-7101, or have your staff contact Diane Evans at (214) 665-6677.

Sincerely,



Miguel I. Flores

Director

Water Quality Protection Division (6WQ-EW)

Enclosure

cc: Jim Davenport, TCEQ - Water Quality Assessment Section (MC-150)
Allen White, USFWS - Austin Ecological Services Office

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§307.4(j). Aquatic recreation. This provision was clarified by stating that contact recreation is a presumed use for all water bodies, unless a site-specific use is included in Appendix A. Since the indicator bacteria for the contact recreation use were changed to *E. coli* and enterococci, the fecal coliform criteria in the 1997 WQS were deleted from §307.4(j) and a general reference to the criteria in §307.7(b)(1) was added.

§307.6(d). Several editorial changes, which don't alter the meaning or implementation of the TX WQS, were made in provisions under §307.6(d)

307.6(d)(1) - Table 3. Human health criteria for consumption of water and fish, freshwater fish, and/or saltwater fish were revised or added for the following compounds (some revisions are due to rounding):

acrylonitrile	1,2 - dibromoethane	lead
aldrin	1,3 - dichloropropene	methoxychlor
benzene	dieldrin	methyl ethyl ketone
benzidine	1,2 - dichloroethane	nitrobenzene
benzo(a)anthracene	1,1 - dichloroethylene	PCBs (polychlorinated biphenyls)
benzo(a)pyrene	dioxins/furans (TCDD equivalents)	pentachlorobenzene
bis (chloromethyl) ether	endrin	pentachlorophenol
carbon tetrachloride	heptachlor	1,2,4,5 tetrachlorobenzene
chlorobenzene	heptachlor epoxide	tetrachloroethylene
chloroform	hexachlorobenzene	toxaphene
chromium	hexachlorobutadiene	2,4,5 - TP (silvex)
chrysene	hexachlorocyclohexane (alpha)	2,4,5 - trichlorophenol
cresols	hexachlorocyclohexane (beta)	trichloroethylene
4,4' - DDD	hexachlorocyclohexane (gamma)	1,1,1 - trichloroethane
4,4' - DDE	(Lindane)	vinyl chloride
4,4' - DDT	hexachloroethane	
dibromochloromethane	hexachlorophene	

Human health criteria for mirex were removed from the TX WQS and footnotes for Table 3 were revised.

§307.6(d)(3)(A). References to EPA's Health Effects Summary Tables (HEAST) and Assessment Tools for the Evaluation of Risk (ASTER) database were added, along with a citation of the computer program, CLOGP3. The statement on correction of bioconcentration factors to an average concentration of 3% was moved from paragraph (F) in the 1997 TX WQS to paragraph (A) in the 2000 TX WQS. Also, the reference to the Quantitative Structure Activity Relationships Database was deleted from paragraph (F) in the 1997 TX WQS.

§307.6(d)(3)(E). The scaling factor for conversion of body weight of laboratory animals to humans was changed from a ratio of animal to human weight to a scaling factor of 3/4 power. The default values for weight of rats and mice were removed and language for the use of reported weights of animals was added.

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§307.6(d)(8)(A) and (B). Language was revised in these paragraphs to implement human health criteria for substances not listed in Table 3 of the TX WQS. The reference to EPA's National Toxics Rule was removed and a general reference to EPA's publication of §304(a) criteria in the *Federal Register* added to both paragraphs. Statements concerning the use of a Maximum Contaminant Level (MCL) or a TNRCC [TCEQ] guideline for waters with a public drinking water supply use if either of these values are more stringent were added to both provisions.

§307.6(d)(8)(C). References to EPA's IRIS Integrated Risk Information System and QSAR databases were removed and language specifying the use of technically valid information for calculation of numeric criteria was added.

§307.6(d)(10). "Selenium" was listed under the parameters to be measured as total recoverable.

§307.7(b)(1). Recreation. The following modifications were made to this provision:

- "fecal coliform bacteria" was changed to "indicator bacteria" in appropriate places;
- an explanation of the units of measurement for bacteria criteria was added, along with a reference to TCEQ's procedures for assessment of water quality data;
- *E. coli* criteria were adopted for the contact recreation use in freshwater (geometric mean of 126 colony forming units per 100 ml, single sample maximum of 394 colony forming units per 100 ml);
- enterococci criteria were adopted for the contact recreation use in saltwater (geometric mean of 35 colony forming units per 100 ml, single sample maximum of 89 colony forming units per 100 ml) for all coastal recreation waters including those designated as oyster waters;
- *E. coli* and enterococci criteria (geometric means of 605 per 100 ml for freshwater and 168 per 100 ml for saltwater, respectively) for the noncontact recreation use were adopted;
- criteria for fecal coliform bacteria were retained for the contact and noncontact recreation uses and language was added for the transition from sampling of fecal coliform bacteria as an indicator to the use of *E. coli* and enterococci;
- the requirement for calculating the geometric mean from not less than five samples in 30 days was removed, as was the requirement for no more than 10% of all samples exceeding the fecal coliform criterion of 400 colonies per 100 ml where five samples were taken within a 30-day period or no more than one sample exceeding this criterion where fewer than ten samples were analyzed;
- language was added to specify that fecal coliform criteria can continue to be used for assessing recreation uses in segments designated as oyster waters since the oyster waters use includes fecal coliform criteria;
- a general reference to local swimming advisory programs and voluntary public notices and closures issued by local jurisdictions or private property owners was adopted, along with a statement that these actions may be based on other indicators of recreational suitability.

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§307.7(b)(2). Domestic water supply. Language was added under paragraph (A)(i) to include segments that have characteristics which would allow use as a supply for a public water system to be protected by the Public water supply use.

§307.7(b)(3)(B). Under the oyster waters use, the fecal coliform numeric criteria for the contact recreation use were removed and a reference to the new indicator bacteria in §307.10(b)(1) was added. Criteria to protect recreation uses continue to apply within the 1000 foot buffer zone established for oyster waters.

§307.8(a)(1)(F) and §307.8(b)(1)(G). Language was revised to refer to the aquatic recreation criteria in §307.4(j) and §307.7(b)(1) in place of "fecal coliform" in the provisions for low-flow conditions and mixing zones in unclassified waters.

§307.9(e)(3). Language was revised to incorporate the updated bacteria indicators under the recreation uses in §307.7(b)(1) and to clarify that the criteria include a geometric mean and a single sample maximum.

Appendix A - Site-specific Uses and Criteria for Classified Segments. The criteria under the contact recreation use (*E. coli* or enterococci) were adopted for all segments in Appendix A. The indicator criteria listed in Appendix A for segment 2501- Gulf of Mexico and other segments designated with the oyster waters use were not revised in the 2000 TX WQS. The enterococci criteria apply to all saltwaters, including those designated with the oyster waters use.

The enterococci criteria of 168/100 ml for segments 1006 and 1007 of the Houston Ship Channel were retained from the 1997 TX WQS. The noncontact recreation use for segment 2308 - Rio Grande below International Dam was retained from the 1997 TX WQS and the geometric mean criterion of 605/100 ml (*E. coli*) was adopted.

EPA takes no action on the revised bacteria criteria for the segments of the Red River and Lake Texoma which are located within the state of Oklahoma. This area roughly includes segments 0201, 0202 (except ½ mile below Denison Dam), 0204, 0205, 0206 of the Red River Basin.

EPA also takes no action on a provision in §307.7(b)(1)(C) that allows continued use of fecal coliform bacteria for effluent limits in wastewater discharge permits. EPA considers this to be an NPDES implementation provision. EPA points out that even with this provision, NPDES permits would need effluent limits as stringent as necessary to meet the ambient enterococci criteria which are applicable criteria for protection of contact recreation uses.