



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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steers@tceq.s

Status of Electronic Discharge Monitoring Report (eDMR) Receiving System

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Current Status:

The eDMR receiving system is available now!

The [import file specifications](#) have been updated. Please download and use the latest version.

A signed STEERS Participation Agreement (SPA) is required for any user who plans to submit DMRs electronically. Go to the [STEERS Home Page](#) to create a new account or update an existing account to add eDMRs.

Background:

The State of Texas Environmental Electronic Reporting System (STEERS) is a Web-based system that enables the regulated community to securely submit required reports electronically to the Texas Commission on Environmental Quality (TCEQ). The most recent addition to STEERS is a program to allow for the electronic submittal of discharge monitoring reports (DMRs). These reports are required of facilities that are covered under various water quality permits.

Features:

- Online submittal of DMRs through Web forms; users need only an Internet connection and a Web browser. No special software is required.
- Upload of DMR data from the customers' computers; no need to re-key information already stored in databases or spreadsheets.
- Secure, authenticated submittals using the same STEERS system that thousands of individuals in the regulated community already use.
- Users can verify and validate their DMR data before they actually submit it. Dozens of data quality checks will be performed on the submitted data, and users will be able to correct mistakes prior to submitting the data.
- Every electronically signed DMR will be stored as a copy of

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record with all the data, the user name and e-mail address of the submitter, and the time and date of the submission. Customers will have easy online access to all of their previous copies of record.

- The system will support three types of users:
 - "Read-only" users can only view pending and submitted data.
 - "Edit/prepare" users can view, create, edit, and delete reports and upload import files.
 - "Submit users" may view, create, edit, delete, and submit reports as well as upload import files.

These various roles allow users to delegate the tasks of developing and submitting DMRs to multiple staff while keeping final submittal authority with the appropriate company official as required by the regulations.

- With the exception of a seven-day waiting period to allow for the update of the EPA data system, any electronically reported DMR can be corrected for up to five years after it has been submitted.

Input File Format

We understand that many customers have DMR data in their own systems and would like to upload the file to STEERS and import it instead of having to manually type it in the system. The import file specifications have been finalized and you can begin the effort of changing your data systems to produce these files.

The input file will be a delimited text file. The [specification document](#) includes examples to assist in your understanding of the requirements. Please e-mail steers@tceq.state.tx.us if you have any questions about the file format specifications.

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Water Fees Project
Page 1
February 10, 2006

#2

Subject: Water Fees Project

At the end of the 2005 Legislative Session, staff of the Texas Commission on Environmental Quality (TCEQ) conducted a comprehensive review of the agency's water-related program activities and fee structures. The review was conducted to ensure that the agency has sufficient monies to support its water programs at the current appropriated level after the 2006-2007 biennium.

The review was necessitated by a funding swap in TCEQ's 2006-2007 appropriations that reduced General Revenue by \$20 million per year (\$40 million for the biennium) and replaced it with \$20 million per year in unappropriated balances from (Fund 153), which relates to revenue from water fees. However, those unappropriated balances are projected to be depleted in the near future, causing a deficit in Fund 153 in the 2008-2009 biennium. Basically, we take in \$40 million in revenue annually while annual fund obligations total approximately \$62 million, a \$22 million dollar difference.

The review resulted in staff concepts and numerous options to address the \$22 million imbalance between annual revenue and obligations.

At this time, the various options are still being weighed and the recommendations the agency wants to put forward are not yet completed and available to release. I will say that the choices range from seeking restoration of some or all of the general revenue, considering fee changes within our existing legislative authority to possibly seeking authority for a new fee or fees.

TCEQ expects to provide much more in terms of details with a web posting around mid-May. Staff are expected to hold several stakeholder meetings across the State in June. Stakeholder meeting dates and locations will be announced as they are finalized.

UPDATE ON GENERAL PERMITS
04/11/06

#3

TITLE	DESCRIPTION	STATUS/ISSUES
<p><u>TXR040000</u> Phase II MS4s (Municipal Separate Storm Sewer Systems)</p>	<p>Authorizes the discharge of storm water from small MS4s located in an urbanized area. Contact: C. Hopper (4524)</p>	<p>The RTC is currently under review by TCEQ legal staff. We expect to have comments by the end of April. Revisions will be made and the draft will be sent to the EPA for 30 day review.</p> <p>Will be published in the Texas Register on April 14th and public meeting will be held on May 19th at 2:00 pm.</p>
<p><u>TXR050000</u> MSGP</p>	<p>Authorizes the discharge of storm water associated with industrial activities. Contact: C. Hopper (4524)</p>	<p>Expires 3/2008. Discussions have begun regarding renewal.</p>
<p><u>TXR150000</u> Construction Storm Water</p>	<p>Authorizes the discharge of storm water from construction sites. Contact: P. Foran (5099)</p>	<p>The draft permit was approved by the EPA, notice was published, and the RTC completed. Changes were made to the draft based on public comments and then sent to the EPA for a 30 day review on 12/14/05.</p>
<p><u>TXG130000</u> Aquaculture</p>	<p>Authorizes the discharge from aquaculture facilities. Contact: Y.Pierce (6922)</p>	<p>Scheduled for April 12, 2006 agenda.</p>
<p><u>TXG340000</u> Petroleum Bulk Storage Stations and Terminals</p>	<p>Authorizes the discharge of wastewater from petroleum bulk storage stations and terminals. Contact: Y.Pierce (6922)</p>	<p>The draft permit is being revised based on public comments. The permit will be renoticed this month.</p>
<p><u>TXG670000</u> Hydrostatic Testing</p>	<p>Authorizes the discharge resulting from the hydrostatic testing of vessels. Contact: Y.Pierce (6922)</p>	<p>Issued April 5, 2005. Accepting and processing NOIs.</p>
<p><u>TXG830000</u> Water Contaminated by Petroleum Fuel or Substances</p>	<p>Authorizes the discharge of water contaminated by petroleum fuel or petroleum substances. Contact: Y.Pierce (6922)</p>	<p>Renewal has been authorized. Informal comments were requested from facilities currently authorized under this general permit.</p>
<p><u>TXG920000</u> Concentrated Animal Feeding Operation</p>	<p>Authorizes the discharge from concentrated animal feeding operations. Contact: L.Fleet (5132)</p>	<p>Permit amendment has been approved by the EPA. Permit is on the April 26, 2006 agenda.</p>
<p><u>WQG600000</u> Commercial solid waste discharge to a POTW</p>	<p>Authorizes the operation of industrial solid waste facilities which discharged to a POTW. Contact: Y.Pierce (6922)</p>	<p>Scheduled for April 26th agenda for adoption.</p>

#4



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 22 2005

Ms. L'Oreal Stepney, Director
Water Quality Division (MC-145)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Dear Ms. Stepney:

In preparation for the next triennial revision to the *Texas Surface Water Quality Standards*, we have reviewed the 2000 water quality standards. Enclosed are our recommendations for the upcoming revisions. Our suggestions include input from the Environmental Protection Agency (EPA) staff in the following programs: wastewater permitting, source water protection, monitoring and assessment, total maximum daily load, beaches and wetlands protection. Additionally, EPA's recommendations reflect input provided in recent years by the U.S. Fish and Wildlife Service. We are providing a copy of these comments to the U.S. Fish and Wildlife Service which may provide additional recommendations for the triennial revision.

Please note that the positions described in our enclosed comments are preliminary in nature and do not constitute a disapproval or determination by EPA under Clean Water Act §303(c). Approval/disapproval decisions will be made by the Region following adoption of new/revised standards by the state and submittal to EPA. Any determination pursuant to Clean Water Act §304(c)(4)(B) may only be made by the Administrator.

EPA will provide recommendations for revisions on the document titled *Procedures to Implement the Texas Surface Water Quality Standards* by separate letter. We look forward to continuing work with you and your staff on the protection of water resources. If you have any questions, please contact me at (214) 665-7135 or have your staff contact Diane Evans (214) 665-6677.

Sincerely,

Jane B. Watson
Chief
Ecosystems Protection Branch (6WQ-E)

Enclosures

cc: Mark Fisher, TCEQ - Water Quality Assessment Section (MC-150)
Allen White, U.S. Fish and Wildlife Service

512-239-4400
Sincerely T

EPA recommendations for 2006 revision of *Texas Surface Water Quality Standards*

Section 307.3. Definitions and Abbreviations

1. §307.3(a)(13). Critical low flow. EPA recommends the state use 7Q10 as the flow criteria for aquatic life protection and the 30Q5 flow for implementation of human health criteria for non-carcinogens.
2. §307.3(a)(42). Public water supply use. We suggest the adding the following language to this definition or to the public water supply use in §307.7(b)(2)(A)(i) to support the core principles of TCEQ's and EPA's source water protection programs: "Under this designation, conventional drinking water treatment for naturally occurring pollutants may be required prior to use. Protection efforts focused on man-made sources of pollution will be adequate to ensure that the quality of source water will not be degraded such that additional treatment beyond that which is needed to address naturally-occurring pollutant concentrations will be required prior to use." Also, the language inserted in §307.7(b)(2)(A)(i) of the 2000 standards ("exhibit characteristics that would allow them to be used as the supply source") could be inserted in this definition.
3. §307.3(a)(65). Toxicity. Effects of dissolved salts in source waters on aquatic life are excluded from the definition. EPA recommends that an additional definition for "osmotic imbalance" be included to address excessive levels of specific ions or changes in the natural ratios of ionic components. Such imbalance and excessive concentrations, resulting in stress (which may cause lethal and/or sub-lethal effects to aquatic organisms) is a particular concern in the case of brine discharges.
4. §307.3(a)(69). Wetland. EPA recommends modifying the fourth sentence as follows: "The term 'wetland' does not include irrigated acreage used as a farmland, unless wetland characteristics remain under normal conditions after irrigation operations cease; a man-made wetland...."
5. §307.3(a)(70). Wetland water quality functions. We recommend modifying this definition to read "...habitat for aquatic life and wildlife."
6. Definitions for terms such as "bioaccumulation factor" (BAF) and "relative source contribution," and the acronyms, may be appropriate depending on how the human health criteria in §307.6 are revised.
7. EPA recommends that a definition of "source water" be added to the TX WQS to complement the definition of Public water supply use. The following is an example definition: "water resources that are currently or may be used as a source of drinking water."
8. EPA recommends that a definition and acronym for "Ground water under the direct influence of surface water (GWUDI)" be added to the TX WQS. Public water supply wells that are determined to be GWUDI are often sited in close proximity to surface water bodies, which are

protected through water quality standards. Since these wells are often hydrologically-connected to the surface water body, the quality of the surface water will have a direct influence on the quality of water produced by the well. For the purpose of protecting public health, such wells are treated the same as surface water sources under the Safe Drinking Water Act as amended in 1996. If these wells are used as a source of public drinking water supply, the surface water body should receive the same level of protection as provided in segments with a surface water intake. The following is provided as an example definition: "a phrase used to describe any water beneath the surface of the ground with significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as *Giardia lamblia* or *Cryptosporidium*, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions."

§307.4. General Criteria

9. §307.4(b)(5). EPA recommends the development of numeric standards, or detailed implementation provisions, to limit changes in turbidity or color.
10. §307.4(e). Nutrients. EPA supports the adoption of numeric nutrient criteria for reservoirs and is currently reviewing draft criteria for 30 "least impacted" reservoirs.
11. §307.4(f) Temperature. EPA recommends the development of numeric standards to ensure that a balanced aquatic community can exist, outside of the mixing zones, in power plant cooling reservoirs.

§307.6. Toxic Materials

12. §307.6(c)(2). Criteria for several substances in Table 1 were recalculated for the 1988 WQS revision by removing data for species not expected to be found in Texas waters (while continuing to meeting the minimum requirements for criteria development found in EPA procedures). In EPA's 1994 water effects ratio guidance (*Interim Guidance on Determination and Use of Water-Effects Ratio for Metals*), expanded procedures for recalculating aquatic life criteria are included in Appendix B. The newer recalculation process should be used for any proposed aquatic life criteria which are recalculated.

13. §307.6(c)(4). Chemical specific criteria would be more appropriate for addressing ammonia and chlorine toxicity. Most facilities are required to monitor more frequently for chemical pollutants than whole effluent toxicity (WET), and WET is not monitored for most minor discharges. Also, direct measurement is more representative of potential impacts. Both of these chemicals degrade and break down in preparation for and during toxicity tests, thus direct measurements are a better indicator of potential risks to aquatic life. The language in the Implementation Procedures under "Federally Endangered and Threatened Species" can provide

additional protection in water bodies with listed species, but will not include other stream segments which may be impacted by minor dischargers.

Table 1 - Aquatic life Criteria

14. EPA has issued revised aquatic life criteria under CWA §304(a) as shown in the table below and recommends the proposal of updated values in the TX WQS.

parameter	freshwater criteria (ug/l)		saltwater criteria (ug/l)		source
	acute	chronic	acute	chronic	
arsenic (d)	340	150			1
cadmium (d)	$e^{(1.0166[\ln(\text{hardness})]-3.924)}$	$e^{(0.7409[\ln(\text{hardness})]-4.719)}$	40	8.8	2
chromium (d) (trivalent)	$e^{(0.819[\ln(\text{hardness})]+3.7256)}$	$e^{(0.819[\ln(\text{hardness})]+0.6848)}$			1
copper	$e^{(0.9422[\ln(\text{hardness})]-1.700)}$	$e^{(0.8545[\ln(\text{hardness})]-1.702)}$	4.8	3.1	1,3
dieldrin	0.24	0.056			1
endrin	0.086	0.036			1
hexachloro- cyclohexane (Lindane)	0.9515				1
mercury (II) (d)	1.4 *	0.77 *	1.8 *	0.94 *	1
nickel (d)	$e^{(0.846[\ln(\text{hardness})]+2.255)}$	$e^{(0.846[\ln(\text{hardness})]+0.0584)}$			1
tributyltin	0.46	0.072	0.42	0.0074	4
zinc (d)	$e^{(0.8473[\ln(\text{hardness})]+0.884)}$	$e^{(0.8473[\ln(\text{hardness})]+0.884)}$			1

(d) dissolved

* The freshwater mercury criteria do not account for bioaccumulation. Also, the saltwater criteria do not consider the final residue value which was used in EPA's 1985 criteria document. See footnotes ee and hh in EPA's criteria table at <http://www.epa.gov/waterscience/criteria/wqcriteria.html>

1. U.S. EPA. 1996. *1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient Water*. Office of Water. EPA-820-B-96-001. Washington, D.C. 112 pp.. (not available on-line)

2. U.S. EPA. 2001. *2001 Update of Ambient Water Quality Criteria for Cadmium*. Office of Water. EPA-822-R-01-001. Washington, D.C. 166 pages.
<http://www.epa.gov/waterscience/criteria/aqualife/cadmium/index.html>

3. This recommended water quality criterion was derived in Ambient Water Quality Criteria Saltwater Copper Addendum (Draft, April 14, 1995) and was promulgated in the Interim final National Toxics Rule ([60FR22228-222237](https://www.govinfo.gov/procuring/60FR22228-222237), May 4, 1995).

4. U.S. EPA. 2004. *Ambient Aquatic Life Water Quality Criteria for Tributyltin (TBT) - Final*. Office of Water. (EPA-822-R-03-031). Washington, D.C. 138 pp.
<http://www.epa.gov/waterscience/criteria/tributyltin/>

15. EPA has published draft aquatic life criteria documents for atrazine, diazinon, copper and nonylphenol. If any final criteria documents for these substances are published in sufficient time to allow consideration by TCEQ and the stakeholders workgroup(s), we recommend adoption of these criteria.

Table 3 - Human health criteria

16. The arsenic criterion for water and fish consumption is based on the Safe Drinking Water Act (SDWA) regulation of 50 ug/l. EPA recommends that TCEQ propose the updated value of 10 ug/l for arsenic, which was promulgated under the Safe Drinking Water Act in 2001 and has an effective date in January 2006.

17. EPA recommends adjusting the dioxin criteria toxic equivalency factors (TEFs) for 1,2,3,7,8-PeCDD from 0.5 to 1.0. Also, the list of congeners should include OCDD and OCDF. The TEF for these compounds changed from 0.001 to 0.0001. We also support the use of TEFs for polychlorinated biphenyls (PCBs) for human health criteria. Sources of information on TEFs for dioxin and PCBs include:

<http://www.epa.gov/toxteam/pcb/tefs.htm>

EPA guidance and information on TEFs for PCBs (website also includes link to chapter 9 of a draft EPA reassessment of dioxin (May 2000))

http://www.sph.umich.edu/dioxin/who_tef_values.pdf

University of Michigan listing of TEFs published by World Health Organization (WHO)

<http://www.who.int/ipcs/publications/en/exe-sum-final.pdf>

WHO 1998 - executive summary of *Assessment of the health risk of dioxins: re-evaluation of the Tolerable Daily Intake (TDI)* - see Table 3

<http://www.epa.gov/waterscience/humanhealth/method/>

Technical Support Document vol.1: Risk Assessment for EPA's Human Health Methodology (2000) - see chapter 2.3.6.

<http://www.epa.gov/science1/pdf/ec01006.pdf>

EPA Science Advisory Board 2001 review of the EPA Office of Research and Development reassessment of dioxin (first link above)

18. In 2001, EPA published a fish tissue-based methylmercury criterion of 0.3 mg/kg for protection of human health. We recommend the adoption of this criterion in Table 3 for consumption of freshwater and saltwater fish. The criteria document is available at:

<http://www.epa.gov/waterscience/criteria/methylmercury/index.html>

19. Since the information in footnote ‡ only applies to mercury, either this symbol should be removed for the chlordane criteria or the bioconcentration factor (BCF) and FDA action limit for chlordane should be included.

20. EPA recommends that TCEQ consider the adoption of human health criteria for the following substances:

antimony	dimethyl phthalate
anthracene	ethylbenzene
bis(2-chloroethyl) ether	hexachlorocyclopentadiene
di-n-butyl phthalate	manganese
<i>o</i> -dichlorobenzene	nickel
<i>m</i> -dichlorobenzene	phenol
3,3'-dichlorobenzidine	1,1,2,2-tetrachloroethane
dichloromethane	1,1,2-trichloroethane
1,2-dichloropropane	thallium
di(2-ethylhexyl)phthalate	toluene
2,4-dimethylphenol	zinc

These substances were reported in the 2003 Toxic Release Inventory as discharged to surface waters in Texas. The total amount discharged in the state is included in the attached spreadsheet (enclosure 2), along with information from EPA's Integrated Risk Information System (IRIS) database. EPA has published criteria under CWA §304(a) for these substances. For nickel, manganese and zinc, EPA's criteria recommendations are based on organoleptic effects rather than the reference doses found in IRIS. The spreadsheet also identifies discharged substances for which a cancer potency factor (q1*) or reference dose (RfD) is included in IRIS, but EPA has not published recommended criteria. The level of confidence in the q1* or RfD value for each substance is provided in the spreadsheet.

§307.6(d)(3)(A)-(H)

21. In November 2000, EPA published updated procedures for calculating human health criteria in *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000)*. Some components of the revised human health methodology, such as the use of the 3/4 power body weight scaling factor, have been included in the 2000 TX WQS. EPA recommends incorporation of the other features where data are available. These include: revised procedures for calculating cancer potency factors and reference doses; expanded calculation of derivation for lipid values; accounting for other sources of exposure (e.g., food or air); and, use of BAFs in place of BCFs.

EPA's updated human health methodology uses a default freshwater fish consumption rate of 17.5 g/day for recreational fishers. This value is based on a U.S. Department of Agriculture study

conducted in 1994-1996 and includes consumption of both freshwater and saltwater species. A technical support document¹ for the 2000 human methodology includes data compiled by geographic region (see Appendix A, table A-19 for “west south central region”). A website maintained by the U.S. Department of Agriculture - Agricultural Research Service includes more recent studies on food consumption and several options for obtaining data (please see http://www.ars.usda.gov/main/site_main.htm?modecode=12-35-50-00). EPA recommends that TCEQ consider the national default value or results from other available studies for the calculation of updated human health criteria.

22. EPA’s IRIS database is still the source for updated cancer potency factors and reference doses. For the water quality standards program, this information was compiled in 2002 as part of list of factors used to calculate EPA’s §304(a) recommendations (see link for “Human Health Criteria Calculation Matrix” at <http://www.epa.gov/waterscience/standards/wqcriteria.html>). In 2003, EPA published updated values for 15 substances, but the matrix document from 2002 was not revised. The factors used to calculate the 2003 criteria are found in the Federal register notice published on December 31, 2003 (see table on page 4 - adobe format works best).

23. In the review of the 2000 TX WQS, an error was discovered in the calculation of the BCF for some substances. In the TCEQ calculations, BCFs were corrected to a lipid concentration of 3%. However, the BCFs obtained from EPA’s criteria documents for several substances were already corrected to a lipid concentration of 3%. These include the following compounds: acrylonitrile, aldrin, benzo(a)anthracene, benzo(a)pyrene, chromium, chrysene, endrin, heptachlor epoxide, hexachlorobenzene, hexachlorocyclohexane (alpha), hexachlorocyclohexane (beta), hexachlorocyclohexane (gamma), hexachloroethane, pentachlorobenzene, pentachlorophenol, and toxaphene. Where BAFs are not available and BCFs are retained, this error must be corrected in the triennial revision.

24. §307.6(e). Total toxicity. EPA recommends adding language to the last sentence stating that chronic toxicity will also be precluded in water with seasonal aquatic life uses.

§307.7. Site-specific Uses and Criteria

25. §307.7(b)(1). The contact and noncontact recreation uses for freshwater and saltwater includes the term "should not exceed." Based on recent litigation, use of this phrase or similar language such as “absolute maxima” or “absolute minima” may not be appropriate where a state assesses data differently than what is expressed in the standards. When a state has "shall not exceed" language in its standards, but uses a binomial probability approach in the actual assessment of data, which allows for a predetermined number of exceedances of criteria before an impairment is identified, a possible inconsistency exists. EPA encourages TCEQ to examine how it uses implementation language when describing numeric criteria in its standards, and assure that

¹U.S. EPA. 1998. *Ambient Water Quality Criteria Derivation Methodology Human Health Technical Support Document Final Draft*. EPA/822/B-98/005. July 1998. Office of Science and Technology. Washington, D.C. 383 pp

assessment criteria used in other documents is consistent with that language.

26. §307.7(b)(1)(A)(i). The single sample criterion of 394 colonies/100 ml for the *E. coli* was calculated using a standard deviation based on state-specific data, as recommended in EPA's criteria document. In 2000, data for *E. coli* was limited to 126 stations in seven river basins. The average of the log standard deviations from the 126 stations was 0.53. These stations include sites in two tidal segments and 31 segments/reaches listed for impairment of the contact recreation use on the state's 2002 §303(d) list (prepared after the adoption of the 2000 TX WQS). EPA recalculated the average log standard deviation without the stations in tidal or listed segments and the same value of 0.53 was obtained. The stations were also evaluated using the 2000 §303(d) list and a similar result was obtained (average log standard deviation of 0.54 which produces a single sample criterion of 405 per 100 ml). Since TCEQ and other state and local agencies have collected additional data for *E. coli* at freshwater stations in recent years, EPA recommends recalculation the log standard deviation. Also, options such as using data from least-disturbed reference conditions should be considered.

27. §307.7(b)(1)(B)(i). The enterococci criterion of 89 per 100 ml in the 2000 TX WQS is based on EPA's Quality Criteria for Water - 1986, EPA 440/5-86-001 (the "Gold Book"); however, the recommended value for freshwater was inadvertently adopted in the TX WQS. Additionally, the Gold Book contains errors on the single sample enterococci maximum for moderate use areas (82% confidence level) for both freshwater and marine water. The correct criterion in marine waters for the moderate use level is 158 per 100/ml. EPA recommends that the state correct the single sample maximum enterococci criterion for saltwater in the triennial revision.

The State has flexibility on assigning intensity of use categories to coastal recreation waters. The 2000 TX WQS applies the moderate level of use to all waters. However, the Texas General Land office has designated numerous swimming beaches in the State and it would be appropriate to assign a single sample maximum consistent with a 75% confidence level for most of these designated beach areas. Chapter IV (B)(4) of the preamble to the federal regulation for *Water Quality Standards for Coastal and Great Lakes Recreation Waters* includes more discussion on this issue (see <http://www.epa.gov/fedrgstr/EPA-WATER/2004/November/Day-16/w25303.htm>).

If sufficient information has been collected from saltwater segments to calculate a standard deviation, an alternate value for the single sample maximum may be appropriate. EPA's regulation cited above includes the following information on calculation of site-specific standard deviations in the jurisdictions covered by the rule (see 40 CFR §131.41(c)(3)):

"To compute the site-specific log standard deviation in a statistically meaningful way as explained in the preamble to the proposed rule (69 FR 41727), today's rule requires that the States and Territories collect at least 30 samples in a single recreation season."

This would have to be done on an individual water-by-water basis; however, there is some flexibility in combining information from several sampling stations.

28. §307.7(b)(1)(C). This provision allows the use of fecal coliform bacteria in developing effluent limits for wastewater discharges, which is currently acceptable. EPA has recently proposed methods for the analysis of *E. coli* and enterococci bacteria in wastewater. If these methods are finalized in time for consideration for this revision, modifications to this language or the standards implementation procedures may be appropriate.

29. §307.7(b)(3)(B)(iii). EPA recommends the addition of language to allow the use of risk-based tissue concentrations for shellfish when these values are lower than the action levels established by U.S. Food and Drug Administration.

30. §307.7(b)(5). We recommend that Appendix A of the standards identify which segments are designated for the seagrass propagation use. The current and historical distributions of seagrasses in Texas are fairly well known, so this would be a feasible task. We also encourage TCEQ to consider applying the seagrass propagation use not only to locations where seagrasses currently exist, but also where they existed historically, and where their restoration is thought to be achievable.

We also recommend developing narrative or numeric criteria to protect the seagrass propagation use. There is a good basic understanding of the light requirements of seagrasses and actual criteria for light could be established in the near future. We believe sufficient information of the relative importance of suspended solids, chlorophyll a, and other light absorbing and light scattering substances, in controlling the light regime in seagrass beds is available. In addition, criteria are needed to protect seagrasses from excessive epiphytic algal growth, and from the effects of excessive macro-algal growth in general in seagrass beds. This may require nutrient criteria. Investigation over the next few years to set appropriate criteria to protect seagrasses from nutrient stressors is recommended. In recent years, data has been collected by the University of Texas Marine Science Institute as part of a Regional Environmental Assessment Program funded by EPA. Also, the coastal seagrass monitoring program coordinated by the Texas Parks and Wildlife Department may yield valuable data.

It would also be useful to specify the wetlands water quality function use for existing segments with substantial wetlands components and stand-alone wetlands which would benefit from additional WQS protection.

§307.8 Application of Standards

31. §307.8(b) Mixing zones. EPA recommends including a size limitation(s) for mixing zones in the standards and the development of procedures to prevent the overlap of mixing zones in segments with multiple dischargers (as referenced in §307.8(b)(7)).

32. §307.8(b)(4). This provision states that “water quality standards do not apply to treated effluents at the immediate point of discharge.” However, in the case of low dilution receiving waters, this may be necessary.

33. §307.8(b)(8). An additional level of protection for sources of drinking water if the following sentence were to be added: "A mixing zone shall not include any public water supply well that has been determined by the State to be under the direct influence of surface water and connected to the mixing zone." Staff in TCEQ's Water Supply Division have investigated all public water supply wells that are suspected to be hydrologically-connected to surface water and maintain an inventory of those wells. The TCEQ Public Drinking Water Section has locational data for these wells for implementation of this language if adopted.

§307.9. Determination of Standards Attainment

34. §307.9(c)(3)(A) Non-tidal flowing streams. Although the dissolved oxygen criteria are applicable to the mixed surface layer, most streams in Texas are completely mixed. EPA recommends clarifying this provision to state that the dissolved oxygen criteria apply to the entire water column unless there is stratification, at which point the criteria apply to the mixed surface layer. Also, it would be beneficial to include language to indicate that vertical profiles for dissolved oxygen will be measured through the entire water column in deeper streams, similar to that found in the 1997 TX WQS. This information is useful in data analysis and for evaluation of water bodies which are potentially stratified as a result of anthropogenic sources.

35. §307.9(c)(3)(C). Tidal waters. The 1997 TX WQS included separate provisions for bays and tidal streams, which EPA believes is appropriate to describe standards attainment procedures in these two different types of ecosystems. As suggested for non-tidal streams, EPA recommends adding language to state that the dissolved oxygen criteria apply to the entire water column in the absence of stratification and that vertical profiles of the entire water column will be measured in tidal streams and bays. The term "composite" may need clarification or revision to be consistent with the TCEQ's guidance for collecting and assessing data since the state's monitoring procedures include both instantaneous sampling and 24-hour sampling for dissolved oxygen. Also, "composite" sampling usually refers collection of water for chemical analyses rather than measurements for field parameters.

Appendix A - Site-specific Uses and Criteria for Classified Segments

36. Segment 0615 - Angelina River/Sam Rayburn Reservoir. EPA disapproved the intermediate aquatic life use and the dissolved oxygen criterion of 4.0 mg/l for this reach in June 2001. The high aquatic life use and associated dissolved oxygen criterion of 5.0 mg/l should be inserted for segment 0615. The boundaries for segment 0615, which were established in the 2000 TX WQS, have been approved.

37. Segment 1006 - Houston Ship Channel and segment 1007 - Houston Ship Channel/Buffalo Bayou Tidal. As stated during previous triennial revisions, EPA strongly recommends that aquatic life uses be adopted for segments 1006 and 1007 of the Houston Ship Channel. Data has been collected to demonstrate that an aquatic life use is justified. In accordance with this recommendation the dissolved oxygen standards should be evaluated. Increasing the dissolved oxygen standards from 1.0 mg/l to 2.0 mg/l for 1007 and from 2.0 to 3.0 for segment 1006 are

recommended to protect the actual aquatic life use. The adoption of uses and revised standards would allow a transition to a dissolved standard of 4.0 mg/l and high quality aquatic life use for segment 1005. The present transition from a standard of 2.0 mg/l to 4.0 mg/l may result in impairment around the segment boundary (in the vicinity of the monument).

38. Segment 1811 - Comal River - information from the U.S. Fish and Wildlife Service indicates that the temperature criterion of 80°F may not be protective of federally-listed species residing in the upper reach of this segment. EPA recommends that TCEQ consider dividing this segment to include a lower temperature in the upper reach.

39. Segment 2308 - Rio Grande below International Dam. The Public water supply use was inadvertently included in the 2000 TX WQS, which conflicted with information on segment 2308 in the preamble to the state regulation. This use can be removed from Appendix A. EPA has not approved (or disapproved) the public water supply use for this segment of the Rio Grande.

40. EPA recommends that the seagrass propagation use be designated in Appendix A for appropriate water bodies.

Appendix D - Site-specific Receiving Water Assessments

41. Pine Creek (segment 0202). A previously-approved Use Attainability Analysis (UAA) was used to establish an intermediate aquatic life use for Pine Creek in the 2000 TX WQS. However, sampling for the UAA was conducted in the upper end of this water body and several tributaries enter Pine Creek in the (approximate) 30 km downstream of the sampling point. EPA recommends evaluation of the downstream portion of Pine Creek to determine if it can support a high aquatic life use.

42. Spring Branch (segment 0801): A UAA for Spring Branch was previously reviewed by EPA and determined to be "approvable." This water body and the intermediate aquatic life use were inadvertently left out of the proposed standards, but should be included in the next triennial revision.

43. As done in previous revisions, please continue to review available information on individual segments in Appendix D and revise aquatic life uses as appropriate.

Appendix E - Site-specific Criteria

44. EPA recommends adding information to Appendix E to indicate that the water effects ratio (WER) of 1.8 for segments 1001, 1005, 1006, 1007, 1013, and 2427 applies to the entire water bodies, while the other WERs in Appendix E may only be used by the facility which conducted the study. Also, the WERs should be reported Appendix E with four significant figures to minimize effects of rounding in the calculation of site-specific criteria (please see item I.1. on page 57 of EPA's 1994 guidance on WERs).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200
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MAR 9 9 2005

Ms. L'Oreal Stepney, Director
Water Quality Division (MC-145)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Dear Ms. Stepney:

The Environmental Protection Agency (EPA) appreciates the opportunity to provide recommendations on the upcoming revision of the document titled, *Procedures to Implement the Texas Surface Water Quality Standards*. Our comments are enclosed and include several items that were not resolved in the current version. EPA provided recommendations for the revision of the *Texas Surface Water Quality Standards* in December 2005.

We look forward to continuing work with you and your staff on the protection of water resources. If you have any questions, please contact Jane at (214) 665-7135, Claudia at (214) 665-6464 or staff in the NPDES Permits Branch or Ecosystems Protection Branch

Sincerely,

A handwritten signature in cursive script that reads "Sharon Jerry Parrish".

for Jane B. Watson, Ph.D.
Chief

Ecosystems Protection Branch (6WQ-E)

A handwritten signature in cursive script that reads "Claudia Hosch".

Claudia Hosch
Chief

NPDES Permits Branch (6WQ-P)

✓cc: Sidne Tiemann, TCEQ - Water Quality Assessment Section (MC-150)

**EPA recommendations for revisions to
*Procedures to Implement the Texas Surface Water Quality Standards***

General Comment

The proposed revisions include a number of instances where case-by-case decisions will be made. The Environmental Protection Agency (EPA) recognizes the need for flexibility in regulatory permitting decisions and has no objection to the State establishing implementation on a case-by-case basis where there are special conditions or circumstances. However, since permit conditions in State-administered National Pollutant Discharge Elimination System (NPDES) programs must adhere to both state water quality standards and the Clean Water Act (CWA), EPA believes it is important to include a general statement in the Implementation Procedures clearly establishing that case-by-case permitting decisions are subject to EPA approval (e.g., Page 44, Deriving Permit Limits for Human Health Protection; Page 52, Once-Through Cooling Water Discharges; Page 62, Alternate Analytical Test Methods; Page 66, Screening Procedures and Permit Limits for Total Dissolved Solids; Page 77, (WET) Test Frequency; Page 91, TDS Toxicity in Chronic and 48-Hour Acute Tests; Page 91, Toxicity Attributable to Ammonia).

Determining Water Quality Uses and Criteria

Page 3, Unclassified Waters. EPA recommends revising the second sentence under “Perennial Waters” as follows: “In accordance with results from statewide ecoregion studies, the critical low flow in unclassified perennial streams in the eastern and southern portions of Texas (shown as area “A” on Figure 1, page 6) may be modified ~~are assigned dissolved oxygen criteria~~ as described in 30 TAC §307.7(b)(3)(A)(ii)” and in the section of this document entitled “Eastern and Southern Portions of the State” on page 10. The caption for figure 1 should also be modified.

Where a discharge creates a perennial flow in an intermittent stream, the reach below the discharges should be assumed to have an aquatic life use and protected at the appropriate level for conventional and toxic pollutants. The federal regulation at 40 CFR §131.10(g)(2) for designation of uses states “natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violation of State water conservation requirements to enable uses to be met.” EPA recommends that the additional language be included in the Implementation Procedures to address this issue.

Antidegradation

Page 26, General Provisions (last paragraph); page 27, Applicability to Specific Parameters “Listings based on narrative standards”; and, page 28, Procedures for Discharges to Listed Water Bodies (first paragraph). These provisions include language that is inconsistent with the federal regulations cited at 40 CFR §122.44(d) and 40 CFR §131.12. Limitations must control

all pollutants that may be discharged at levels that will cause or contribute to an exceedance of a state water quality standard. In addition, the antidegradation policy must be implemented so that the quality of waters necessary to support designated and presumed uses are maintained. Therefore, in these cases, controls (i.e., permit limitations) to prevent additional loadings from new and existing dischargers are required if the listed pollutant is present in the effluent.

Mixing Zones and Critical Conditions

Pages 40-43, Critical Conditions for Aquatic Life Protection. As discussed above, where an effluent discharge creates a perennial flow, the reach below the discharges should be assumed to have an aquatic life use.

Toxic Pollutants

Pages 51-85. We recommend that TCEQ consider the development of policy and procedures related to implementation of bioaccumulative pollutants which may accumulate in bottom sediments and fish tissue. This is particularly important since existing human health criteria are derived using bioconcentration factors rather than bioaccumulation factors.

Pages 62-67, Establishing Permit Limits for Toxic Pollutants without Criteria. When calculating permit limits for toxic pollutants without criteria, the state should screen the reported value against both the MAL (if available) and a screening value (to protect aquatic life, human health or both) in order to evaluate the water quality significance. If the reported value can be quantitatively supported (i.e., the methodology was appropriate to arrive at a definitive value below the "default MAL"), monitoring and permit limits should be considered.

Pages 67-70, Correcting for Background Concentrations. We recommend including sources of background data in this section. Permit writers should evaluate readily available sources of ambient data, such as TCEQ's Surface Water Quality Monitoring database, to determine if background data for appropriate parameters are available for permit development.

Whole Effluent Toxicity Testing (Biomonitoring)

As proposed by EPA Region 6 in several letters and meetings during 2005, EPA believes it is necessary for TCEQ to revise its whole effluent toxicity (WET) permitting procedures. This will require that TCEQ modify its implementation procedures to ensure full compliance with federal regulations at 40 CFR §122.44(d)(1) with respect to developing a predictive reasonable potential process for WET limits and to begin incorporating WET limits for sub-lethal effects (such as growth and/or reproduction). EPA expects TCEQ permits to be issued with the required changes by January 2007. EPA is working on updates to the various WET language templates and these will be provided for TCEQ's review and comment in the near future. Since the TCEQ water quality standards already provide for protection of aquatic life at the sub-lethal effects, the implementation procedures should be revised with respect to WET limits for sub-lethal effects.

Pages 101-102, Applicability. EPA recommends that TPDES permits for minor dischargers include WET testing (and limits as appropriate) where: 1) reasonable potential for instream toxicity exists due to the discharge of potentially toxic levels of chlorine, ammonia, or other toxic compounds, and, 2) the facility discharges directly to a receiving stream designated as critical habitat for, or is known to support an aquatic species listed as threatened or endangered.

Regarding chlorine discharges from minor facilities, TPDES permits for minor privately-owned treatment works (POTW) discharge facilities often include a requirement that the facility maintain a total chlorine residual of 1- 4 mg/l prior to final discharge. Minor POTWs that discharge these levels of residual chlorine to receiving waters without significant dilution constitute a serious potential for instream toxicity. EPA regulations do not exclude minor discharges from toxicity requirements. EPA and TCEQ have addressed potential toxicity from minor discharges, so a precedent exists to support modifications to the Implementation Procedures.

EPA's Post Third-Round NPDES Permitting Strategy prioritizes permit issuance and limits with the first priority being facilities with known or suspected toxicity problems. Chlorine is specifically mentioned in the following excerpt:

Chlorine: Permits for facilities with the potential for a continuous discharge of chlorine will include water quality-based effluent limits for Total Residual Chlorine. Water quality-based limits will be derived from the state water quality standards giving consideration to appropriate dilution factors, state implementation procedures or federal criteria if no state standard has been approved.

TCEQ should revise the Implementation Procedures and permitting practices to include either WET testing or dechlorination requirements and total residual chlorine limits for those minor POTW (< 1.0 MGD design flow) facilities which may pose a toxic threat based on available dilution. We believe that a basis for this modification already exists on page 101 in the Implementation Procedures in the following bullets for domestic discharges:

The [TCEQ] requires WET testing of domestic wastewater dischargers that have **any** of the following conditions:

- an average permitted flow of 1 MGD or greater
- a final phase of their permit with a design flow of 1 MGD or greater
- an approved pretreatment program with significant industrial users discharging into their collection systems
- **the potential to cause toxicity in the receiving water.** [emphasis added]

Pages 105-107, WET Testing Frequencies. This section should be clarified to reflect that the minimum WET monitoring frequency starts out at once per quarter for each new permit cycle (i.e., every fifth year). It should also be clarified to reflect that the frequency reduction does not apply to facilities which were previously monitoring for the life of the permit at a frequency of once per quarter.

Page 111, Toxicity Reduction Evaluations (TREs). This section should be revised to clarify the process by which a sub-lethal TRE and limits will be required. An approach similar to that used for lethality effects would be appropriate.

Pages 113-114, Toxicity Control Measures. This section should be revised to explain how TCEQ will assess reasonable potential for WET limits for lethal and sub-lethal effects in a manner that meets all applicable state and federal requirements. The state's current practice for establishing WET limits does not meet the requirements of the CWA or federal regulations at 40 CFR §122.44(d)(1)(ii) and (iv). The regulation is specific in requiring a reasonable potential determination during permit development and including WET limits where reasonable potential exists. The discharge of toxics in toxic amounts is to be controlled to preclude instream toxicity, that is, permit limits must be placed in NPDES permits to ensure toxic discharges which may impact aquatic life do not occur. The current WET permitting procedures allow multiple toxic events to occur before a multi-year toxicity study is performed, followed by a compliance schedule of, usually, three years, before a permit limit becomes effective. To allow permittees time to become familiarized with WET and toxicity studies, EPA Region 6 followed this practice when it first began implementing WET requirements in permits. However this practice does not comply with the permitting regulations, and Region 6 can no longer support its use. Region 6 has developed and is using a predictive reasonable potential determination procedure that it believes meets the minimum federal requirements. TCEQ may use this procedure or develop an equivalent one for EPA's review.

Pages 113-114, Toxicity Control Measures (Chronic and 48-Hour Acute). Please note that federal regulations at 40 CFR §122.44.d.1(v) require the permitting authority to demonstrate in the permit fact sheet that the chemical-specific (CS) limit or best management practice (BMP) is adequate to prevent toxicity before it can be substituted for a WET limit. Where a CS or BMP is substituted for a WET limit, the WET testing frequency must be adequate to ensure that the alternate limit is working.

Page 125, Toxicity Attributable to Diazinon. Under item 2, TCEQ should clarify that effluent monitoring for Diazinon must be performed concurrently with WET testing to ensure that data collected is meaningful. In the last paragraph, TCEQ must clarify that if sub-lethal or lethal toxicity persists, the permittee will resume the TRE. TCEQ may also want to include a discussion regarding the use of piperonyl butoxide (PBO) to neutralize Diazinon toxicity when an additional toxicant is suspected. (Also see comment below for Table 9)

TPDES Storm Water Permits

Page 130, Discharges to Impaired Waters. Under "Constituents of Concern," language in the first paragraph must be revised to read "...TMDL or TMDL implementation plan is only eligible..." to ensure compliance with federal regulations and to ensure that permits for reissuance or major amendments for existing dischargers include TMDL requirements. If a

TMDL has been approved by EPA, permits must be issued in accordance with the TMDL, regardless of whether a separate implementation plan will be developed. Permits must establish controls where the discharge of pollutants have the reasonable potential to cause or contribute to the impairment of the water body. In addition, permits must also establish conditions to ensure consistency with the requirements of an approved water quality management plan approved by EPA, as cited in 40 CFR §122.44(d)(6).

Site-Specific Standards and Variances

Page 135, Coordinating with EPA. The provision states that EPA will confer with the U.S. Fish and Wildlife Service. It is not clear if this term refers to the review of the permit, the variance or both items. Although EPA coordinates with the Services on draft TPDES permits, consultation under §7 of the Endangered Species Act is still required on revisions to water quality standards where there may be an effect on federally listed species. It may not be possible to complete ESA consultation on the variance within the 45-day review period of the draft permit. A determination of “approvable” can usually be made within 45 days. Also, the public comment period on the TPDES permit must be completed before EPA approves a variance to the water quality standards.

Page 136, Temporary Standards and page 139, UAAs for Typical Sites. The provisions for Temporary Standards and UAAs are acceptable; however, an important part from 40 CFR §131.10(g) has not been included in the bullets for “natural, ephemeral or low-flow conditions or water levels prevent the attainment of the use.” The federal regulation includes the above language plus the following “unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violation of State water conservation requirements to enable uses to be met.” EPA recommends that the additional language be included in the Implementation Procedures and will consider this factor in review of temporary standards and UAAs.

Pages 143-144, Site-specific Numeric Standards for Aquatic Life (Bioavailability of specific toxic substances of concern, as determined by water-effect ratio tests or other analyses approved by the agency). TCEQ may wish to include some of the recent policy decisions such as use of the streamlined method for saltwater WERs and use of 48-hour tests with *Americamysis bahia* with copper nitrate as the spiking solution

Page 146, Site-Specific Standards for Total Toxicity (Indigenous aquatic organisms that may have different responses to particular toxic materials). It would be useful to cite the updated procedures for recalculating aquatic life criteria found in Appendix B of EPA’s guidance document, *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals*, EPA-823-B-94-001, 1994.

Appendix C

Table 3 - Locations of Federally Endangered and Threatened Aquatic and Aquatic-Dependent Species in Texas.

One of TCEQ's response comments on an earlier version of the Implementation Procedures stated that Table 3 represented only the critical concern species/watersheds plus the piping plover. The Implementation Procedures should acknowledge this limitation and that other aquatic and aquatic-dependant species are found in Texas. If Table 3 is based on the *Hydrologic Database for Federally-Listed and Candidate Species* in Texas, several inland water bodies where the interior least tern, the piping plover or the whooping crane have found should be added. These include the water bodies in the following segments: 0201, 0202, 0203, 0204, 0205, 0206, 0207, 0214, 0804 and 0805.

The 2005 "Hydrologic database" includes several unclassified water bodies in segments 1427 and 1430 for the Barton Springs salamander. Also, "Toyah Creek" (segment 2311) should be included in Reeves County for the Pecos Gambusia. The interior least tern may be associated with water bodies in segments 2303, 2304, and 2305. For the Devils River minnow, the "Hydrologic database" also lists Pinto Creek and Pinto Springs in segment 2304 and the following unclassified water bodies in segment 2309: Dolan Creek, Dolan Spring, Finegan Spring, Pecan Spring, and Phillips Creek. Toyah Creek in segment 2311 is listed for the Pecos Gambusia. The Pecos assiminea snail was listed as endangered in August 2005 and critical habitat has been designated in Diamond Y draw and East Sandia spring in segment 2311.

Table 8 - Minimum Analytical Levels for Permit Application Screening and Table 9 - Analytical Methods for the Determination of Pollutants Regulated by 30 TAC §307.6.

EPA Headquarters and Region 6 are nearing completion of an updated list of Minimum Quantification Limits (MQLs). Clean techniques for mercury and other metals (method 1600 series), pesticides, and volatile and semivolatile organics are included to replace less sensitive methods. We recommend including the revised MQLs in both Tables 8 and 9 and will provide this document under separate cover as soon as it is available.

TCEQ must either revise Table 8 and Table 9 to incorporate EPA method 614 (MAL, 0.1 ug/l; MDL, 0.012 ug/l) or include this method on page 125, Toxicity Attributable to Diazinon.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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WATER QUALITY DIVISION

Ms. L' Oreal Stepney, Director
Water Quality Division (MC-145)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711

Subject: Revisions to Whole Effluent Toxicity components of the TPDES program

L' Oreal
Dear Ms. Stepney:

In my letter dated February 24, 2005, I requested that each State work with Region 6 to develop a mutually acceptable strategy directed toward implementing a predictive approach to determining reasonable potential for whole effluent toxicity (WET). I also requested the Region 6 states to begin developing requirements to establish WET limits for sub-lethal effects (e.g., growth or reproduction), where required by applicable water quality standards, to fully comply with NPDES regulations at 40 CFR Part 122.44(d)(1).

As you know, EPA Office of Water's Permitting for Environmental Results (PER) process identified the lack of these program components as a significant weakness in the Region 6 NPDES permitting program. To ensure the program is in full compliance with Federal regulations, Region 6 and its states must incorporate these permitting practices into their NPDES permits.

During the transitional period, EPA has been actively supporting our states through various activities, including: Region 6 / State WET meeting (April 6, 2005); technical assistance visits to each state agency on revising its rules and implementation procedures; public outreach via presentations at the annual meetings for the New Mexico Municipal Wastewater Association, the Oklahoma City MS4 conference and the Arkansas Environment Federation; and a two-day state of the science NPDES WET workshop at Region 6 in Dallas. Region 6 is committed to working closely with you to answer questions, resolve impediments to State NPDES WET program revisions and to provide any support you and your staff may need to implement these requirements.

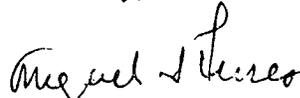
I am enclosing a copy of the final EPA Region 6 NPDES WET Implementation Strategy. It has been implemented in EPA Region 6 issued permits since May 2005. I encourage TCEQ to adopt a similar strategy to be implemented in TPDES permits.

Internet Address (URL) • <http://www.epa.gov>

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Please provide me with a status update, by April 1, 2006, on the WET revision initiative within your agency, including identification of milestones that will allow TCEQ to complete the tasks necessary to implement the revisions in NPDES permits issued beginning January, 2007. Failure to fully adopt all WET requirements in a timely manner places both the TCEQ and Region 6 at risk with respect to administration of the NPDES permitting program. My staff and I are fully committed to assisting TCEQ in any way we can in developing and implementing your strategy. If you have questions or would like to discuss this further you may call me or your staff may contact Claudia Hosch at (214) 665-6464 or via e-mail at hosch.claudia@epa.gov.

Sincerely,



Miguel I. Flores
Director
Water Quality Protection Division

Enclosure

cc: Mr. Martin Maner, ADEQ
Mr. Chuck Brown, LDEQ
Ms. Marcy Leavitt, NMED
Mr. Derek Smithee, OWRB
Mr. Jon Craig, ODEQ

bcc: Division Reading File	6WQ
Branch Reading File	6WQ-P
Bill Honker	EPA R6, WPD
David Gillespie	EPA R6, ORC
Claudia Hosch	EPA R6, NPB
Willie Lane	EPA R6 NPB
Phillip Jennings	EPA R6, NPB
James Hanlon	EPA, OWM
Linda Boornazian	EPA, OWM/WPD
Thomas Laverty	EPA OWM/WPD
Stephen Sweeney	EPA OGC

EPA Region 6 WET Permitting Strategy

May, 2005

This strategy is designed to implement regulatory requirements established in 1989 and guidance developed since that time. The Clean Water Act and federal regulations at 40 CFR § 122.44(d)(1) establish the basis for whole effluent toxicity (WET), or biomonitoring, requirements for wastewater discharge permits issued under the NPDES permitting program. The applicable federal regulations require that the permitting authority determine, during the permit development period, whether the reasonable potential exists for an effluent to cause or contribute to an excursion above a State's narrative or numeric criterion for the protection of aquatic life. If reasonable potential is found to exist, WET limits must be included in the permit. A chemical-specific limit may be established in lieu of a WET limit where the permitting authority demonstrates, in the fact sheet, that the chemical limit will preclude toxicity at unacceptable levels. All available, valid and relevant information will be used in making permitting decisions. EPA Region 6 WET permitting practices follow the current agency policy on independent applicability.

References to sub-lethal effects in this document apply only to chronic testing. Where the permit establishes 7-Day Chronic test requirements, the reasonable potential analysis will be performed for both lethal and sub-lethal effects. Where the permit establishes 48-Hour Acute test requirements, the reasonable potential analysis will be performed on lethal effects.

Applicability

WET requirements are established for all Region 6 discharges classified as majors (e.g., POTW \geq 1.0 mgd design flow) with the exception of once-through, non-contact cooling water discharges to which no chemical treatment is added. WET requirements will also be applied on a case-by-case basis to minor discharges with known or suspected toxic potential, or which are designed to discharge \geq 0.5 mgd with a chlorine residual. As an option in such cases, WET testing may not be required if the permittee agrees to a compliance schedule to install dechlorination to meet a non-detect total residual chlorine limit.

Reasonable Potential

As applicable, reasonable potential to cause or contribute to an exceedance of State narrative criteria for the protection of aquatic life will be determined by the method established in EPA's Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, second printing (see Box 3-2, page 53). This approach is also provided in federal regulations pertaining to wastewater discharges into the Great Lakes, at 40 CFR § 132, Appendix F, Procedure 6. Where a facility does not intend to significantly alter the effluent quality or quantity during the permit term, has a critical dilution of 90% or greater, has performed quarterly testing and has demonstrated no significant lethal or sub-lethal effects during the previous five-year period, a finding of no reasonable potential may be made.

WET Limits

A WET limit is a permit control required where the reasonable potential exists for an exceedance of the State water quality criteria for protection of aquatic life and a specific toxicant has not been identified and controlled via a toxicity reduction evaluation (TRE). If, during permit development, reasonable potential is found to exist for lethal and/or sub-lethal effects, WET limits will be included in the permit. A compliance schedule of up to three years duration can be included. The minimum monitoring frequency for species under a WET limit is once per quarter for the life of the permit. WET limits may be removed from a permit after the first five years in effect, based on a demonstration of no lethal or sub-lethal effects during that period.

Monitoring Frequencies

Facilities with WET Limits

Normally, the minimum monitoring frequency for species under a WET limit is once per quarter for the first five years after a WET limit goes into effect.

Major Dischargers

For major dischargers, the *minimum* monitoring frequency for WET is once per quarter for the invertebrate and vertebrate test species, with a potential reduction in testing frequency after completing one year of testing with no lethal or sub-lethal effects (see Region 6 WET Monitoring Frequency Guidance, 06/30/00). Some facilities pose a more significant concern (e.g., POTWs ≥ 20 mgd and petroleum/chemical refineries) and have historically been required to perform WET monitoring on a quarterly basis, for at least one test species, for the life of the permit. The minimum WET monitoring frequency reduction option does not apply to these discharges.

Minor Dischargers

Testing frequencies for minor dischargers and dischargers with a critical dilution of $<1.0\%$ will be established on a case-by-case basis.

All Dischargers

When a test failure occurs, the monitoring frequency will automatically increase to once per month for the next three months. The purpose of this testing is to determine whether toxicity is present at a level and frequency that will provide toxic samples to use in performing a toxicity reduction evaluation (TRE). The additional tests are not performed for the purpose of confirming whether the original test failure was 'real.' If no additional test failures occur during the three-month period, the testing frequency will return to once per quarter for the life of the permit or until another test failure occurs. If multiple intermittent test failures occur, a TRE may be required, and the testing frequency may be increased for the affected test species.

Toxicity Reduction Evaluations / Toxicant Identification Evaluations (TREs/TIEs)

Where reasonable potential is not demonstrated and the permit is issued with WET monitoring requirements only, the permit will contain trigger language to require a TRE. A TRE is a 28-month study to identify sources and controls for toxicants in effluents. A TIE is a set of effluent manipulations that is used to identify specific toxic compounds in a sample known to be toxic. EPA does require TREs but does not typically require TIEs. Generally, permittees are allowed latitude in choosing how they proceed through a TRE and come into compliance. A TRE will usually result in either WET limits (if a specific toxicant is not identified, confirmed and controlled), or chemical limits. In some cases a best management practice (BMP) may be included as a permit control. If additional testing indicates that a chemical-specific limit or a BMP does not result in controlling toxicity, and reasonable potential exists; the permit then will be revised to include WET limits.

Lethal Effects

Region 6 will implement TREs and limits for lethal effects as it has historically. A TRE for lethal effects is triggered by failure in a scheduled test followed by failure in one or more tests performed during the following period of increased frequency.

Sub-Lethal Effects

Due to the potential difficulty of resolving toxicity related, in some cases, to identifying toxicants responsible for sub-lethal effects, EPA Region 6 will take a graduated approach to TREs and implementation of WET limits where significant sub-lethal effects are demonstrated only in effluent concentrations greater than 75% effluent. Where significant effects are demonstrated at effluent concentrations of 75% or less, aggressive TREs have demonstrated a high degree of success. While TREs may still be required, Region 6 will implement limits for sub-lethal limits at the 80% effluent level at this time. A TRE for sub-lethal effects is triggered by failure in a scheduled test followed by sub-lethal failures in two or more tests performed during the following period of increased frequency.

IN ADDITION:

1. Where WET testing has demonstrated a significant toxic effect within two years of the RP determination made during permit development, and the facility has not completed significant relevant improvements, a WET limit will be incorporated into the permit because that data would still be valid and representative, and would indicate that reasonable potential continues to exist.
2. Where there are < 10 test results per species at the time of permitting; and RP is found to exist based solely on the paucity of data, the Agency and permittee may agree to include a permit condition to allow up to twelve months to develop the additional test data necessary to perform another RP determination, using all the data, to determine whether a WET limit is necessary or not.

3. State agencies authorized to administer the NPDES permitting program will decide whether to change results reporting from NOECs to Toxic Units (TUs). EPA Region 6 recommends the use of TUs to simplify the reasonable potential calculation.
4. EPA will consider an alternative WET reasonable potential determination procedure should an agency authorized to administer the NPDES permitting program formally submit one for review. EPA anticipates no basis to delay permitting decisions pending such reviews/revisions.