

TCEQ Draft Screening Procedures for addressing thermal discharges in TPDES Permits. Comments by the EPA

General Comment:

Overall, there are no significant issues that appear to be inconsistent with federal and/or state regulatory requirements. Procedures allow some flexibility in defining critical conditions (i.e., mixing zones, summer conditions) to be used in the screening models.

Screening Procedure Principles:

In the last paragraph it is stated that, “Supplemental procedures will be spelled out in the Implementation Procedures for existing/proposed thermal discharges to water bodies listed as impaired on the 303(d) list for elevated temperature . . .” Please briefly spell out and/or define the supplemental procedures in this document.

Water Body Applicability:

According to the last paragraph, the “downstream extent of the screening analysis will be limited to one mile below the discharge point . . .” Please provide a rationale or examples that justify limiting the distance to one mile for the screening analysis.

It is also mentioned that “intermittent water bodies with minimal aquatic life use will not undergo screening . . .” Please clarify and/or provide a rationale and/or examples of scenarios.

Critical Conditions/Mixing Zone:

For the temperature screening, ambient waterbody temperature consistent with summertime conditions will be used. Please specify the summer months to be use. Also, to further protect aquatic life (i.e., reproduction), we would also recommend to evaluate winter conditions as well other waterbody ambient temperatures in addition to those consistent with summertime conditions.

The fourth paragraph of this section, presents a general description ambient flow values (i.e., 7Q2) to be use for the screening analysis. It is also stated that, “These approaches to critical flow mirrors the techniques used for the reasonable potential analysis for the majority of other regulated pollutants.” For clarification, please identify these approaches as presented in the section entitled, “Mixing Zones and Critical Conditions” of the “*Procedures to Implement the Texas Surface Water Quality Standards.*”

Paragraph #5 describes the variability of mixing zones for thermal discharges (i.e., small mixing zones, larger mixing zones). Please include examples and/or the size of mixing zones for thermal discharges similar to those defined in the “*Procedures to Implement the Texas Surface Water Quality Standards*” for clarification.

For the screening analysis, the ambient summertime temperature value of 30.5°C will be used. It is also stated that this value is used for dissolved oxygen modeling and “derived from statistical analysis of summer temperatures collected throughout the State.” Please describe the data used for the statistical analysis (i.e., time and date of collection). Does the data and/or the 30.5°C represent current ambient

conditions? We recommend using the 30.5°C as the default value only if sufficient gage monitoring data is not available.

How will the screening analysis be conducted if ambient waterbody temperature is above the temperature cap?

The primary source of effluent data is the application upon permit renewal, if the previous permit did not establish permit conditions for temperature. Please confirm.

The 2014 *Texas Surface Water Quality Standards* includes a provision at 30 TAC § 307.4 (f) for industrial cooling impoundments and industrial cooling water areas regarding the applicability of numerical temperature criteria. Please discuss these provisions as stated in the Standards as they relate to the implementation of the proposed temperature screening analysis.

Screening Methods:

We recommend the development and utilization of a check list that documents the decision-making process for the factors/criteria considered in conducting the screening methods described in this document.

Simple Heat Balance:

In paragraph #1, it is stated that simple, conservative heat balance calculations can be used for the reasonable potential analysis for waterbodies receiving small thermal loads or have high thermal load assimilative capacity. How will this be determined and/or defined?

What factor (s) will be used to convert the WLA to Daily Average/Daily Maximum effluent limitations?

Highly Site-Specific Analysis:

“For the largest thermal discharges, highly site-specific analyses will likely be warranted.” Please define “largest thermal discharges” and/or provide examples.

Water Bodies with Temperature Impairment:

The first paragraph states that “More comprehensive approaches to setting effluent limits may be necessary . . .” Please clarify and/or specify these approaches.

It is also stated in the second paragraph, last sentence, that “if the new or increased loadings will cause or further contribute to the elevated temperature conditions, effluent limits to preclude further impairment may be specified or the additional loading request may be denied”. However, if the waterbody is impaired (i.e., criteria not being attained), it is concluded that any additional loading will contribute to the impairment of the waterbody. Please clarify the decision making process to allow additional loadings from a new and/or proposed source if the waterbody is already impaired.

Flow Chart:

In the second block of the flow chart, “Temperature RP analysis not warranted,” if the wastewater does not contain thermal waste streams and discharge into waterbody subject to temperature screening. We

recommend to re-evaluate and/or revise this statement to clarify and ensure that any, or additional waste streams maybe subject to an evaluation (i.e., RP analysis) to determine violation or potential to violate water quality criteria for temperature.