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Via Email: ipcommnt@tceq.texas.gov

Hard copy by regular mail

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Texas Commission on Environmental Quality
Water Quality Assessment
Standards Implementation Team
Mr. Peter Schaefer
MC 150
P.O. Box 13087
Austin, Texas 78711-3087

Dear Mr. Schaefer:

The Texas Industry Project (“TIP”) appreciates the opportunity to participate in the Texas Commission on Environmental Quality’s stakeholder process regarding development of Implementation Procedures for temperature (“Temperature IPs”) for use in the Texas Pollutant Discharge Elimination System (“TPDES”) permitting process. TIP is composed of 66 companies in the chemical, refining, oil and gas, electronics, forest products, terminal, electric utility, transportation, and national defense industries with operations in Texas. Many member companies hold TPDES permits and thus would be directly affected by the Temperature IPs.

TIP supports the overall approach TCEQ is following for the Temperature IPs with rational screening tools and tiered levels of analysis applying to help ensure TCEQ and applicants’ efforts and resources are effectively applied to address temperature. We offer the following comments for your consideration.

1. Discharge Applicability

As a minor clarification, TIP suggests that TCEQ add the following text:

“Simple conservative thermal balances, numerical models, or other techniques are used to *determine if permit limits are needed, and if so, to develop permit limits for temperature*”

2. Water Body Applicability

TIP supports TCEQ’s determination that temperature screening where a discharge is to an intermittent stream with minimal aquatic life use should be performed only for downstream waters with higher aquatic life use. Because the goal of imposing temperature criteria is to support protection and propagation of the waterbody’s balanced, indigenous population of shellfish, fish, and wildlife, screening out water bodies with minimal aquatic life use is a sound

approach. TCEQ originally proposed a one-stream-mile downstream cut off for screening under the Temperature IPs and now proposes three stream miles. The rationale for expanding the review to three miles downstream is not clear, and TIP suggests careful consideration of a shorter screening length given likely heat dissipation.

3. Initial Screens

With respect to both the 10% and retention time screening criteria, TCEQ should consider line edits to say "... will not be further screened." In both cases, TCEQ is evaluating information that addresses the reasonable potential for temperature to cause or contribute to a water quality exceedance and making an informed determination at a sound screening level.

a. Outfall Percentage Screen

TCEQ proposes that "[o]utfalls discharging thermal wastewater consisting of less than or equal to 10 percent of the total flow from the outfall will generally not be considered to have a significant thermal component and will not be screened." TIP supports this concept but suggests TCEQ consider the basis for the 10% and whether a higher percentage would be appropriate. Further, because the calculation is based on wastewater at the outfall, it would be appropriate to allow waste streams to be grouped together at any level of detail that demonstrates that less than the outfall % threshold of the total flow from the outfall is generally heat-bearing. In addition, TIP supports the optionality of this approach so that identifying individual/grouped waste streams is only necessary in the application if this outfall % screening criteria is being invoked. Finally, TIP suggests that wastewater streams reaching the outfall after 48 hours residence time in features that allow for heat dissipation (or have other ways of demonstrating heat dissipation) should not be considered "thermal wastewater" for purposes of this calculation, even if the streams were originally considered a "heat-bearing waste stream" prior to such residence.

b. Residence Time Screen

TCEQ proposes that "discharges that are routed to holding ponds with a mean residence time of 48 hours or greater prior to discharge directly to a classified segment will generally not be considered to have a significant thermal component and will not be screened." TIP believes this is a sound screening criteria and supports its adoption for all discharges, not only those discharges to a classified segment. In addition, the term "holding ponds" could be construed too narrowly, and TIP suggests that it would be appropriate to refer to "impoundments, open channels, or other effluent storage areas that allow for heat dissipation." Industrial facilities have a variety of features in their wastewater treatment and conveyance systems that should be considered in the application of this residence time screening criteria, because they similarly affect the potential for temperature at the outfall.

4. Simple Heat Balance

Use of these tiered analyses presents a sound approach to best deploying TCEQ and applicant resources. It will be important, however, to recognize that limits set with conservative

assumptions could face anti-backsliding challenges in some circumstances and therefore caution and scrutiny should be applied to determine when a more detailed analysis may be more appropriate.

a. Default Mixing Zones

TIP supports the use of the aquatic life mixing zone for the conservative, initial mass balance reasonable potential analysis with respect to the maximum temperature criteria in classified streams. This mixing zone is well-established, implementable, and appropriately protective for a high level screening.

However, TIP requests that TCEQ consider using the human health mixing zone for the conservative, initial mass balance reasonable potential analysis with respect to the rise over ambient criteria (“ ΔT ”). The ΔT criteria does not represent a condition that would have immediate effects in the receiving water.¹ Accordingly, a larger default mixing zone would better align with the nature of the criteria and be protective of aquatic life. Indeed, given the buoyancy of thermal plumes, the zone of passage will be substantial in both default mixing zones.

In addition, please consider adding a qualifier throughout this section so that “mixing zone” reads “default mixing zone.” This edit reinforces that TCEQ continues to provide the option to request a site specific mixing zone because thermal mixing zones have unique characteristics.

b. Ambient Temperature

TIP supports the optionality provided between using the statistically derived default and using site specific information to set the ambient temperature. Because TCEQ has evaluated temperature data and determined that June, July, and August are generally proving to be the critical period, TIP supports using this period for the effluent temperature and the ambient temperature as proposed.

c. Summer Condition Screening

TCEQ’s use of summer months for screening purposes is an appropriate choice for Texas. Discharged effluent is generally cooler in the winter months than in the summer and therefore has less potential to implicate the maximum temperature criterion. The ΔT criteria are also affected by the downward temperature trend that would be expected in the both the effluent and the receiving stream in the winter months.

¹ TIP urges TCEQ to consider a meaningful review of whether the ΔT is even warranted in Texas under the Texas Water Quality Standards. The fact that other states have a ΔT criteria does not justify continued application of this standard without technical evaluation. TCEQ resources should not be committed to the implementation of standards that are not necessary to the support of water quality and a healthy aquatic system.

5. Simplified Uncalibrated Numerical Modeling & Detailed Site Specific Analysis

TCEQ's provisions for simplified modeling and site-specific analysis are appreciated because temperature discharges are in fact unique and will in some circumstances require more detailed consideration and definition of a temperature mixing zone based on the character of thermal plumes. Providing these alternate levels of analysis in the framework in the Temperature IPs supports their integrity and workability.

Under the Detailed Site-Specific Analysis bullets, please consider the following possible edit: "~~Installation and a~~Analysis of the effects of a high-rate effluent to diffuser," because the installation should not read as a condition to analyzing the potential appropriateness of a diffuser that may be later installed.

6. Permit Conditions

a. Interim Condition

If under the Temperature IPs, facilities can demonstrate the adequacy of their temperature limits by application of the mass balance or simplified model in lieu of a more detailed approach established by a temperature plume characterization plan, TCEQ should consider if the measures under the approved characterization plan are still needed or if those requirements could be revised to align with the Temperature IPs. In circumstances where a site-specific analysis is warranted, efficiencies in alignment of the temperature plume characterization plan and application of the Temperature IPs should be considered.

b. Other Requirement Language

TIP would appreciate the opportunity to review and comment on any anticipated boilerplate for the Other Requirements section of TPDES permits. As a preliminary matter, it may be appropriate to mirror the language used for the chronic toxic mixing zone.

Temperature criteria apply at the edge of the thermal mixing zone. The thermal mixing zone for Outfall __ is defined as that water within a __ feet radius extending over the receiving water from the outfall point.

Also, if application of the Temperature IPs reveals that more stringent temperature limits are needed, compliance schedules in TPDES permits should appropriately account for the potential challenges of implementing actions to achieve those limits, including, for example, time to address studies, design, and construction, technical or space constraints, and property access issues.

Thank you for your time and consideration of these comments.

Very truly yours,

A handwritten signature in black ink that reads "Paulina Williams". The signature is written in a cursive, flowing style.

Paulina Williams
on behalf of the Texas Industry Project