

Summary of Comments

Joint Meeting of the Water Quality Advisory work Group (WQAWG) and the Water Quality Standards Work Group (WQSWG) to Address Thermal Discharge Issues

2nd Meeting

December 17, 2014

Comments regarding modification or changes to standards or thermal criteria:

SH QUESTION: Is there a threshold for thermal discharge? Anything over the standard may be too conservative.

TCEQ: This is to be developed along with other factors, will rely on input from industrial permit team regarding what constitutes a thermal discharge.

SH QUESTION: Speaking on power plants, are you going to be looking at the applicability of the existing standards in some of those situations or are the temperature criteria set? Will you be looking at modifying criteria?

TCEQ: Maximums were well vetted in the late 70's, a contract is currently out with Texas Tech to look at Delta T to make sure it is still appropriate, also looking at temperature maximums which is a longer term process.

SH QUESTION: Any consideration on changing how we determine standards attainment?

TCEQ: Not yet but we could, flow rated average is important. EPA is objecting to how we determine attainment. How should limits be expressed i.e. straight temperature, loading limits.

Comments regarding criteria for unnamed, unnumbered, intermittent or 100% effluent streams:

SH QUESTION: Stakeholder (SH) asked when discharge is into unnamed or unnumbered stream where a temperature criterion is quite a way downstream, how is temperature criteria applied going back up to point of discharge?

TCEQ: Start simple; only go to complex analysis if needed. Immediate stream will have temperature criteria if not exempt. We are still developing what criteria will be applied.

SH QUESTION: Will you be developing numeric standards for unnumbered segments and applying those to the discharges?

TCEQ: Need some way to assign unclassified waters with temperature criteria, decisions haven't been made yet, as of right now the only waterbodies that have numeric maximum criteria are designated segments in Appendix A. No scenario for how we would pull that further up into the watershed. Delta T's (rise over ambient) apply to all water bodies, both classified and unclassified; Delta T is in the standards now (since 70s) so theoretically your limits should take Delta T into account. We do not yet have procedures to show how the temperature limit is protective of the rise over ambient and segment max criteria; this is the goal of this meeting and temperature project. We are available to meet about the required study plan.

SH COMMENT: We only have one year to determine impact to segment, now you say we must do this for unclassified waters also?

TCEQ: Only Delta T will apply to unclassified waters, must look at entire watershed. We can assist with the study plan required in current permits.

SH QUESTION: What about 100% effluent streams?

TCEQ: Effluent temperature is then the ambient temperature; a lot of these questions have been answered by other states so if you have experience in other states or operations that have gone through this process please pass this information along to us.

TCEQ COMMENT: One way to capture some of this discussion would be to add another section to the flowchart to evaluate impacts on downstream waters.

TCEQ COMMENT: Carry the analysis as far downstream as needed to demonstrate compliance with water quality standards, not just the immediate receiving stream.

Comments regarding modeling:

SH QUESTION: Why are calibrated models optional?

TCEQ: Only needed in accordance with flow chart, very site/discharge specific. Resource intensive exercise, if you can do simple, conservative techniques to develop permit limits, no need to spend those resources (time and staff). Example is a small discharge into water with substantial dilution potential.

SH QUESTION: Would you consider using thermal feature of QUAL-TX?

TCEQ: CORMIX is the common model used for this in the past, any model legitimate to waterbody and circumstances would be fine, prefer public domain models but we are flexible.

SH COMMENT: QUAL-TX will assume temperature is constant across the stream and through the entire depth.

Comments regarding mixing zones:

SH QUESTION: Do you have guidelines for sizes of mixing zones?

TCEQ: Details are to be worked out, try to use existing approach first. In general, simple techniques employ conservative assumptions and the predictions you get out of them tend to be more protective than detailed analysis. We must be confident that with simple, conservative techniques, water quality standards will be maintained. In most cases if you go to a more sophisticated model with data collection and calibration, the numbers in the permit tend to be more realistic because the various safety factors employed in a simplified analysis are removed, so get closer to actual conditions.

SH QUESTION: What about overlapping mixing zones?

TCEQ: Current approach will come into play, thermal discharges might be able to overlap (to be determined), not known if thermal can overlap toxic mixing zones.

General Comments:

TCEQ COMMENT: Language that is in permits now agreed upon with EPA. EPA wants permittees to start collecting data but we don't have a methodology yet, may not have the need to do modeling, only data collection. We don't want permittees to do a lot of modeling before procedures are finalized and then not need it.

SH QUESTION: Where is the language of the 3 items that Debbie spoke of earlier?

TCEQ:

307.3 definitions is where we added definition for industrial cooling water area

307.4(f) general criterion and who is exempt from max temperature criteria, Delta T

307.8 application of standards, clarify that we can have mixing zones of different sizes for different numeric criteria

TCEQ COMMENT: Cooling water reservoirs may not have issues downstream from the reservoir.