Meeting Minutes

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

August 20, 2014

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Location: Building F, Second Floor, Room 2210

Time: 9:00 am – 11:30 pm

9:00 a.m. Welcome Introductions, Purpose of the Meeting and How We Got Here presented by Jaya Zyman-Ponebshek

The meeting commenced with an introduction of the goals of the meeting and how we arrived at this point in the progression of the temperature issue.

9:15 a.m. Update on Revisions to the Standards, Existing Standards and Literature Search Status and Timeline, presented by Debbie Miller

A brief presentation was given by TCEQ on the history of existing temperature standards, an update on pending revisions to the standards and a contract to perform a literature search related to rise over ambient criteria.

- Industrial cooling water impoundments are exempt from temperature criteria if they don't interfere with any other uses such as aquatic life, recreation, public water supply
- Maximum temperature differentials range from 1.5 degrees F to 5 degrees F
- There are temperature maximums for designated segments
- All concepts are present in the first EPA approved water quality standards from 1973 and were based on a 1968 document put together by The National Technical Advisory Committee (the Green Book)
- In the early 1970s the state conducted and contracted special purpose monitoring and data evaluations to determine site specific temperature for individual water bodies; the resulting criteria ranged up to 95 degrees F
- Approximately two thirds of maximum temperatures in the rules are between 91-95 degrees

BREAK

10:00 a.m. Temperature Screening Procedures – TPDES Permits and Development Timeline, presented by Lynda Clayton

TCEQ presented a risk-based conceptual approach that could be used as a framework for the development of the screening procedures.

TCEQ presented a timeline for the development of temperature screening procedures for TPDES permits consistent with the agreement between WQD and EPA.

- August 2014 – initiate stakeholder meeting
- March 2015 – input from stakeholders due
- April to December 2015 – research and benchmarking
- January 2016 – TCEQ and EPA discussions on approaches
- July 2016 – release approach to stakeholders
- November 2016 – final draft release to stakeholders for comment
- January to August 2017 – Implementation Procedure adoption process
- October1, 2017 – begin including approved screening procedures in all draft TPDES permits
- Many states have specific zones for thermal discharges, one has heat dissipation areas, one allows different temperature rise during different times of the year

10:15 a.m. Possible Screening Levels Approach, presented by Mark Rudolph

At this time the audience was encouraged to participate in a discussion of the conceptual approach and express any ideas that could be useful.

Handouts: DRAFT – Initial Concepts for Screening Procedures to Support TPDES Permitting of Thermal Discharges – Available on webpage.

General Discussion

COMMENT: Stakeholders (SHs) requested guidance on what the thermal characterization plans prescribed in their permits should include, and not include.

COMMENT: SHs want the EPA\TCEQ letters specifying the thermal strategy posted on the website.

COMMENT: SHs seem to conceptually agree on using a risk based approach to the development of procedures.

COMMENT: SHs expressed no strong opinions related to the number of risk levels/tiers in the procedures.

COMMENT: SH commented that Washington State Department of Ecology has a simplified model including delta T that could be used for levels IIa and IIb.

COMMENT: SH recommended a maximum temperature threshold for qualifying for a simplified analysis.

COMMENT: SH recommended that our formal written guidance include the recommendation that the applicant come and talk to TCEQ WQ staff prior to deciding on an approach for evaluating their thermal impact.

COMMENT: SH recommended that Level 1 be used in a very limited and restricted way by not applying it to a large number of facilities.

COMMENT: SH expressed that a way to handle facilities that may fall into multiple levels be clarified.

COMMENT: SHs indicated a preference to handle each thermal outfall separately when multiple outfalls occur in the same permit, each outfall would be screened and possibly fall into a different level of evaluation.

COMMENT: SH wanted the applicant to recommend and justify the level the facility would fall into, not just agency staff.

COMMENT: SH expressed the opinion that a higher level of scrutiny (higher level analysis) be given to facilities discharging into waters listed for DO, toxics, endangered species, mussels etc.

COMMENT: SH recommended combining risk levels IIa and IIb.

COMMENT: SH recommended setting scrutiny levels only based on water body type.

COMMENT: SH suggested development of a flowchart describing the agency's decision making process regarding choosing levels.

QUESTION: SH asked if 316(a) remains an option.

TCEQ: response was yes, although it is a complex option.

QUESTION: SH asked about TCEQ recommended models.

TCEQ: response was that there are no recommendations at this time but that preference is for public domain models with a history of use, custom models can be a problem so permittees should be sure that they are accurate, TCEQ uses CORMIX model.

COMMENT: SH commented that complex reservoir models are not usually off the shelf type.

QUESTION: SH asked about a comment on staying power of modeling results.

TCEQ: response was that models with more site specific information tend to have greater certainty in a manner similar to DO modeling.

COMMENT: SH commented that some dilution thresholds in the risk levels are arbitrary.

TCEQ: response was that these values are just placeholders.

COMMENT: SH commented that there should be a "no risk" tier, do not want a max temp cap but could have temp threshold. Initial screening could result in no temp limit.

QUESTION: SH asked about how to define ambient temperature in the absence of data.

TCEQ: response was that this hasn't been developed yet.

QUESTION: SH asked if a facility would fall into higher tier with more detailed scrutiny just because a lot of data is available.

TCEQ: response was no but that modeling with data results in a higher level of confidence, and that more complex modeling could result in less stringent limits; default models are typically conservative.

COMMENT: SH commented that there are older facilities with high temp limits that can't meet a 95 degrees F maximum temperature criterion.

QUESTION: SH asked if there is a method for data collection.

TCEQ: response was that the TCEQ Surface Water Quality Monitoring System has procedures.

COMMENT: SH commented that some facilities cannot achieve a lower limit and would close.

TCEQ: response was that TCEQ will work with all facilities, should gather ambient and effluent temperature data, some facilities will have problems, a thermal mixing zone can be developed.

COMMENT: TCEQ commented that safe passage for aquatic life is needed for thermal MZs.

COMMENT: SH commented that temperature is an important consideration for aquatic life, separate from dissolved oxygen issues related to temperature.

QUESTION: SH asked if MZs for thermal will be different from toxics.

TCEQ: response was yes they can.

QUESTION: SH asked if model identification alone was sufficient for the thermal characterization plan in permits.

TCEQ: response was no, more information is needed, TCEQ can discuss one on one with permittees, objective is to enable permittee to understand their thermal plume in the most useful way for them.

COMMENT: TCEQ commented that thermal plans should include timeframes, model type, data to provide adequate framework, and that part of the plan can include proposed thermal MZ and justification.

COMMENT: TCEQ commented that the thermal screening procedures are not geared to the development of end of pipe temperature limits.

COMMENT: SH commented that model calibration should be optional.

QUESTION: SH asked if there is a procedure to develop thermal MZs.

TCEQ: response was not at this time.

QUESTION: SH asked about cooling water areas.

TCEQ: response was that they are different from cooling water impoundments but cannot impede expected use, temp criterion also apply downstream.

QUESTION: SH asked about a definition of impoundment.

TCEQ: response was that they are built for a specific purpose and that there is not a surface area requirement, cooling water impoundments are waters in the state.

COMMENT: SH commented that older facilities may need to add cooling towers which use a significant amount of water, impacting the politics of water conservation.

COMMENT: SH commented about exemption from definition of waters of the US for treatment and that treatment includes temperature.

COMMENT: SH commented that industrial cooling water areas should be defined.

QUESTION: SH asked about timing for guidance for thermal characterization plans prescribed in their permits.

TCEQ: response was we will provide a date that guidance will be released.

COMMENT: SH commented that the thermal characterization guidance should include what not to do.

COMMENT: TCEQ commented that of approximately 70 objections to temperature limits, 20 have been resolved; some permits have multiple issues; revised permits will be sent to permittee for review, and EPA is working with the State on this issue.

COMMENT: SH commented on impeding expected use associated with recreational fishing; if an impoundment was built for cooling, boat ramps could be closed.

QUESTION: SH asked if new facilities meet the segment criteria, would the thermal issue be resolved.

TCEQ: response was that temperature rise over ambient is also an issue for thermal discharges.

COMMENT: SH commented that the most stringent level should govern in the case where multiple levels apply.

QUESTION: SH asked if applicants can propose the size of a thermal mixing zone.

TCEQ response was that the applicant and TCEQ will determine MZ sizes together, the need is to develop guiding principles.

COMMENT: SH commented that a lack of data for Level I is a concern and that a mass balance should be required, also combine levels IIa and IIb.

COMMENT: SH commented that impaired waters should be at least level IIa.

COMMENT: SH commented that guidance is needed for non-conventional models.

QUESTION: SH asked if biomonitoring MZs will be independent of thermal MZs.

TCEQ: response was yes, they can be different.

QUESTION: SH asked if critical conditions evaluation is moving toward a total ecological evaluation or just WET testing species

TCEQ: response was that procedures are needed for potentially larger thermal MZs.

COMMENT: SH commented about using modeling to look at ambient temperature data.

COMMENT: SH commented that sensitivity of receiving waters should be a factor.

QUESTION: SH asked if current temperature limits are acceptable for now.

TCEQ: response was yes until October 2017, then will start using the screening process that we are now developing.

QUESTION: SH asked how this input will help with current permits.

TCEQ: response was that the plan will help get through a permit cycle.

11:50 a.m. Next Meeting Date, presented by Lynda Clayton

Appreciation expressed for attending the meeting and participating.

Next work group meeting is currently planned for early December in the morning.

Once scheduled, a “save the date” announcement will be sent via the WQAWG list service.

12:00 Adjourn