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Mr. Ken Harris, Chief TMDL Section
State Water Resources Control Board
1001 I Street
Sacramento, California 95814
Via e-mail: Kharris@waterboards.ca.gov

Subject: Summary of Outcomes from the Recent Total Residual Chlorine Policy Workshops and Proposal to Provide Additional Information to Support the State's Completion of Policy Development

Dear Mr. Harris:

Tri-TAC, a technical advisory group that represents over 95% of the sewered population in the State through the League of Cities, California Association of Sanitation Agencies and California Water Environment Association, would like to thank the State Water Resources Control Board members and staff for the open stakeholder process you have developed regarding the challenging effort to develop a statewide Policy for chlorine residual. This collaborative model recognizes the potentially significant impacts to stakeholders, particularly Publicly Owned Treatment Works (POTWs), who use chlorine and its derivatives to disinfect our effluent in order to meet our public health and water quality mandates. Tri-TAC would like to continue to work with the State Board to develop a regulatory approach that does not result in needless administrative burdens for POTWs or the State, or that creates unintended compliance jeopardy for POTWs, while furthering the State's water quality protection goals for California.

We greatly appreciate the opportunity to participate in the workshops that were recently held in Northern and Southern California and the continued commitment of staff to work with members of the wastewater treatment community on the on-going development of this important statewide policy. We are encouraged by the dialogue that occurred during the workshops. While several issues remain outstanding, we feel significant progress was achieved on many of the issues of concern and we are confident that with continued interaction, a policy will be developed that is protective of water quality without resulting in unintended consequences. At the recent workshops, staff provided specificity on data needs and since that time, Tri-TAC has been developing a scope and a contract for a consultant to provide you with data and analysis we believe will be responsive to your needs.

We have summarized below our understanding of approaches staff have developed to address some of our concerns and also to identify those areas where concerns remain.

We are also proposing a defined approach to provide relevant and representative data and analysis to staff for consideration prior to promulgation of the draft policy for public review. We have encouraged individual wastewater agencies to submit data to you but we also recognize that these data sets are limited and are not sufficiently representative to characterize conditions on a statewide basis. Since more data will be needed to thoroughly understand the full scope of these complex issues, and to aid in the development of a rational approach to address them, we have prepared a proposed work plan and schedule to provide you with additional information.

Summary of Revised Approaches

Based on the discussions with staff at the recent workshops, we understand the following approaches will be incorporated into the draft Policy (please let us know if this is not accurate):

1. *Compliance Period.* The compliance schedule provision will be modified such that up to five years from the date of permit issuance, modification, or reissuance will be allowed.
2. *Non-Detect Readings.* Reading of “non-detect” will be treated as zero for the purposes of averaging (detection limit still outstanding).
3. *False Positives.* Language will be added to the Policy to provide wastewater treatment agencies the ability to demonstrate the presence of excess dechlorination agent in the system to identify false positive chlorine residual readings. Stoichiometric calculations or direct monitoring can be used to demonstrate the presence of excess dechlorination agent.
4. *SSOs/Mixing Zones.* Language in the FED will reflect that specific Basin Plans, not the chlorine residual Policy, will be used to address these issues.

Remaining Issues

There are a number of significant unresolved issues regarding this Policy that are technically complex and seem to require detailed analysis in order to completely understand them and identify alternative approaches to address them. These issues all deal with the distinction between the standard approach of sampling wastewater effluent (take samples back to highly controlled laboratory conditions, use of QA/QC protocol with blanks and standards, etc.) versus the realities of on-line continuous instrumentation working 24 hours per day 365 days per year, as required in the previous draft Policy. This application of a very low effluent limitation with field instrumentation to determine compliance requires considerable evaluation and development of creative approaches for compliance determination.

Proposed Approach

The clarification on data needs provided by staff at the recent workshops is appreciated and we are now prepared to provide the necessary resources to gather the data and perform analysis that can be considered representative of the range of operating conditions at POTWs throughout the State. We believe this data is necessary to address the outstanding issues in a manner that would support a statewide Policy for chlorine residual. An outline of the proposed work plan is attached which details our approach to providing you with this information.

In an effort to provide this data to staff as quickly as possible, data collection tasks would be conducted in parallel to the greatest extent possible. The estimated time frame to complete this project and submit all of the data to staff is 6 months.

We are prepared to initiate the described data gathering and analysis described immediately. Agreement from staff that the data and information will be considered in conjunction with the development of the draft policy is needed so that we can justify the effort to those providing the funding to this endeavor.

We would appreciate the opportunity to meet with you and your staff at your earliest convenience to review this work plan in further detail and obtain concurrence from you on the proposed approach. We can be contacted via Ben Horenstein at (510) 287-1846. We look forward to hearing from you soon.

Sincerely,
Tri-TAC



Chuck Weir
Chair

Attachment

Cc:

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**CHLORINE RESIDUAL DATA COLLECTION
IN SUPPORT OF SWRCB POLICY DEVELOPMENT AND IMPLEMENTATION
PRELIMINARY TASK OUTLINE**

- 1) **COLLECT EXCEEDANCE DATA TO EVALUATE ABILITY OF POTWS TO COMPLY WITH PROPOSED LIMITS.** Collect data from a sample of representative wastewater treatment facilities in different regions of the State with continuous monitoring systems on a) historic chlorine residual exceedances above the proposed water quality objective/effluent limit and b) circumstances surrounding each event. Information needs to be collected in a consistent format with sufficient detail to allow statistical evaluation to evaluate the ability of POTWs to comply with the promulgation of the proposed effluent limits (based on the provisions in the draft Policy) and characterize the compliance status of POTWs in California.

- 2) **DOCUMENT CAPABILITIES OF EXISTING AND PROPOSED CONTINUOUS MONITORING SYSTEMS.** Develop survey forms and collect information on continuous monitoring equipment and systems currently in use. Information would be used to prepare examples of successful system approaches, and real-world limitations of current technology. Contact and request similar performance information and recommended system design features from vendors, process control/system integrators, and/or the Instrument Testing Association. Determine if vendor research and development efforts are underway or proposed to develop overall systems capable of achieving proposed effluent limits.

- 3) **ATTENUATION STUDIES.** Obtain available information on outfall and receiving water chlorine residual attenuation/decay/demand. Develop guidance for POTWs who wish to pursue obtaining an allowance for short duration, limited magnitude exceedances with their Regional Board. These allowances would be based on attenuation data and the guidance would be used to develop the data to support such allowances. This would be extremely helpful for use by dischargers and Regional Boards, in cases where dischargers wish to develop site-specific objectives and/or effluent limitations. Without standard protocols provided by the State Board, it will be difficult for the regulators as well as the regulated community to accomplish this work.

- 4) **DOCUMENT TECHNICAL RATIONALE FOR DEMONSTRATING COMPLIANCE VIA EXCESS DECHLORINATING AGENT.** Prepare technical rationale for using the presence of excess dechlorinating agent, as determined by calculation or direct monitoring, to demonstrate compliance in the presence of an apparent chlorine residual excursion above the applicable limit. Summarize approach used in Region 2 and develop recommended language for application of a similar approach on a statewide basis. Perform a similar review for how the use and presence of a dechlorinating agent could be utilized for continuous compliance determination and identify the limitations or constraints with this approach. Summarize typical (and excess) dechlorinating agent dosages and review potential impacts on receiving water salt loading, dissolved oxygen, and ambient toxicity.

- 5) **RL DEVELOPMENT.** Evaluate alternative protocols and develop a proposed chlorine residual reporting limit (RL) in wastewater matrix for a) laboratory instruments used for on-

line analyzer calibration, and b) for on-line continuous monitoring systems.

6) EVALUATE ALTERNATE APPROACHES TO DETERMINING COMPLIANCE.

Use results from above tasks to develop recommended compliance determination and reporting approach(es). Consider such factors as frequency, magnitude, and duration of individual and cumulative monthly events.

7) TECHNICAL MEMORANDUM. Summarize results of Tasks 1-6 in a technical memorandum.

Estimated Schedule: It is estimated that the work would be completed over a four to six month timeframe. Data collection tasks would be conducted in parallel to streamline development of the final work product for submittal to SWRCB staff.