



Elsinore Valley Municipal Water District

06/21/06 BMtg Item
Chlorine Policy
Deadline: June 5, 2006

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May 12, 2006

Ms. Song Her, Secretary to the Board
State Water Resources Control Board
Executive Office
1001 I Street, 24th Floor
Sacramento, CA 95814

RE: Comments to the Proposed Total Residual Chlorine and Chlorine-Produced Oxidants Policy of California.

Dear Ms. Her:

The Elsinore Valley Municipal Water District (District) would like to provide our comments to the proposed Total Residual Chlorine (TRC) and Chlorine-Produced Oxidants (CPO) Policy.

- 1) The proposed policy is supposed to establish consistent procedures for non-storm water NPDES permits to regulate TRC and CPO. It is our understanding that it also applies to all holders of general NPDES discharge permits, which have one or more numeric water quality-based effluent limitations. A typical general discharge permit, such as the "NPDES Permit for Deminus Discharges", covers intermittent hydrant discharges within the service area of the discharger, and they are not at a fixed location. On a typical day, the total discharge time could well exceed the 2-hour limit as defined in Part I of the Intermittent Discharge guidelines. So, that makes these general discharges covered under the proposed policy. The current monitoring method for TRC only is grab sampling using handheld chlorine testers. Requiring continuous monitoring for these types of intermittent discharges would be difficult for the dischargers to comply technically and practically. Setting up an on-line continuous analyzer for intermittent discharges with varying locations is impossible because of environmental factors (sunlight, motion, temperature, etc), which could affect the readings. The Policy should allow exemption of continuous monitoring compliance with permits with multiple discharge points on the same day.

- 2) The effluent limits for TRC and CPO, which are to be issued to a discharge permit, should have consideration for the current technical limitations of available on-line chlorine analyzers. A quick survey of on-line chlorine analyzers indicates that the accuracy or detection limits are generally in the range of 0.035 mg/L to 0.05 mg/L, and the sensitivity is 0.01 mg/L. If the effluent limit is set too low, such as same as the objective of 0.019 mg/L for freshwater, most of the analyzers can not even detect it to that low level. To calibrate analyzer to that low range is also a challenge for the discharger. As indicated on Page 5 of your draft information package, most calibration of chlorine at low range is only down to 0.5 mg/L only.
- 3) If continuous monitoring is required, the policy should also address the frequency of calibration for the analyzer. Whether it is weekly, monthly or quarterly, the policy should also address the appropriate calibration procedures, such as the expected strength of the calibration solution. It would be nice to also specify the procedures to make up this solution. It is anticipated that the laboratory personnel of the discharge will have to make up this solution because there is no chlorine calibration solution available on the market for this low range.
- 4) As mentioned in the draft document, a backup system should be provided during the period when the on-line analyzer is off-line for various reasons. The backup system, if it is specified to be grab sampling and testing with handheld testers, should have the same analytical capabilities as the on-line model, and with similar detection limits. Again, it would be technically challenging to locate handheld testers with the same capabilities as the on-line analyzers. Of course, other laboratory-based methods will work. The limitations are the holding time for the samples. Chlorinated species have the tendency to degrade rapidly.
- 5) For compliance monitoring, the proposed policy allows for monitoring of chlorine residual and/or dechlorinating agent residual concentrations. Technically, I am not sure there is any reliable on-line monitoring equipment that can monitor dechlorinating agent residual at low levels, especially on field intermittent discharges. The State Board should give technical advices on the equipment specifications or availability so the discharges can evaluate whether it is even feasible to monitor dechlorinating agent residual.
- 6) For compliance monitoring, the proposed policy specifies that the readings should be taken at least once per minute. As I understand, most on-line chlorine analyzers have a cycling time of several minutes, i.e. the time period between readings. Some amperometric (probe) type chlorine analyzers, without buffering agents, may be able to log continuous readings. Chlorine analyzer users all agree that the analyzers with chemical buffers are most reliable, especially in a treatment plant setting. We suggest that the continuous monitoring data gathering period be extended to at least one every five minutes or ten minutes.

The District appreciates this opportunity to provide comments for the scoping meeting and for this proposed policy. Should you have any questions regarding this letter, please contact me or Julius Ma at (951) 674-3146.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'P. Miller', written in a cursive style.

Phillip Miller, P.E.
Director of Engineering

CC Julius Ma, Water Resources Manager
Ted Eich, Wastewater Operations Manager