

**Response to Written Comments
and
Staff Initiated Changes**

**on the draft Waste Discharge Requirements Order No. R1-2016-0015, National
Pollutant Discharge Elimination System (NPDES)
for the City of Healdsburg Wastewater Treatment, Recycling, and Disposal Facility**

**Regional Water Quality Control Board, North Coast Region
June 16, 2016**

Comment Letter Received

The deadline for submission of public comments regarding draft Waste Discharge Requirements for Order No. R1-2016-0015, National Pollutant Discharge Elimination System (Draft Permit) and accompanying draft Cease and Desist Order No. R1-2016-0016 for the City of Healdsburg Wastewater Treatment, Recycling, and Disposal Facility (Draft CDO) was April 4, 2016. The City of Healdsburg (City) provided timely comments. In this document, the comments are reproduced in their entirety and followed by the Regional Water Board staff response. Text to be added is identified by underline and text to be deleted is identified by ~~strike-through~~ in this Response to Comments document.

City of Healdsburg Permit Comments

Comment 1: *Page A-5, Test of Significant Toxicity (TST). This requirement is a departure from the Toxicity Units (TUC) toxicity testing previously required. The City of Healdsburg takes exception to this requirement because:*

- 1. The previous method tests the hypothesis that effluent is not toxic, whereas the TST method tests the hypothesis that the effluent is toxic.*
- 2. The TST method has been cited as having a higher incidence of false positive results. The Board has indicated that it believes lack of quality data and analyses is at the cause of the false positive claims for TST. However, this approach increases the discharger's liability for a flawed test rather than on impaired water quality.*
- 3. The 5-concentration testing method which was previously required has the quality control and is widely accepted.*
- 4. The TUC provides the discharger with a sense of the degree of toxicity so that the results can be used for process adjustment. TST is a PASS/FAIL result and does not provide useful input for adjustment by the discharger.*

Response 1: Regional Water Board Staff disagrees that the TST is an inappropriate hypothesis-testing approach for analyzing Whole Effluent Toxicity (WET) data. No changes were made to the Draft Permit in response to this comment.

Use of the TST approach for assessing the results of WET data is consistent with the State Water Resources Control Board's proposed toxicity amendment to the *Water Quality Control Plan for Enclosed Bays and Estuaries of California* (Draft Toxicity Policy) which will standardize regulation of aquatic toxicity for all non-oceanic surface waters. The TST approach is also supported by the U.S. EPA in the published guidance document titled, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend that "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." Moreover, the U.S.

EPA WET Test Method cited in this NPDES permit, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014, October 2002, section 9.4.1.2), recognizes that, “the statistical methods in this manual are not the only possible methods of statistical analysis.”

The TST approach was determined by a U.S.EPA peer review to be reasonable and defensible. The State Water Board also initiated an academic peer review focusing on the TST approach for its Draft Toxicity Policy. The peer review concluded that the TST is a “...major advance from the currently compromised No Observed Effect Concentration (NOEC) approach,” and “... is statistically sound, reduces burden associated with the assays, and, by structuring the assay around a hypothesis of significant toxicity, provides incentive for precision in assay performance.” In addition, the State Water Board published a report (*Effluent, Stormwater, and Ambient Toxicity Test Drive Analysis of the Test of Significant Toxicity [TST]*, 2011) that compared the results of over 3,000 completed toxicity tests using both the TST and traditional NOEC approach, among others. The analysis showed that the result of the NOEC and TST are generally the same, but that the TST correctly identified truly non-toxic samples more often than the NOEC approach. Because the TST approach should more correctly identify non-toxic samples, the Permittee should anticipate fewer tests initiated under the accelerated monitoring trigger, which will result in cost savings for the Permittee.

The TST approach is considered more rigorous than the NOEC hypothesis test because it: (1) provides a definitive value on whether a sample is toxic or not at the concentration of effluent in the receiving water after mixing, referred to as the in-stream waste concentration (IWC), rather than an interpreted value as determined by the NOEC approach, and (2) is simpler to use than traditional hypothesis methods and point estimate techniques. In addition, because the TST approach requires only two sets of observations, the effluent’s IWC and the control concentration, instead of the usual five-concentration test, the Permittee may realize cost savings for each chronic toxicity test conducted. The TST language in the Proposed Permit currently requires the five-concentration test because 40 C.F.R. part 136 currently requires use of the five-concentration test design for toxicity testing. Nonetheless, cost savings should be realized in the form of time and effort saved to conduct the statistical analysis on two concentrations (control and 100% effluent) instead of five concentrations.

Comment 2: *Page E-14, section IX.B.1.c, second sentence. We believe that “daily average and maximum flow” was intended in the sentence that reads, “The Permittee shall report daily average and minimum flow through the UV disinfection system.”*

Response 2: Regional Water Board staff agrees. Thus, the sentence has been changed to read as follows: *“The Permittee shall report daily average and ~~minimum~~ maximum flow through the UV disinfection system.”*

Comment 3: *Page F-3, Table F-1. Authorized Person to Sign and Submit reports should include “or other staff with signature authority.” Reports and correspondence may be under the signature of the Wastewater Superintendent or Principal Engineer.*

Response 3: Regional Water Board staff agrees. Table F-1 has been modified to reflect this allowance by adding the words, “or duly authorized person.”

The name identified in Table F-1 as the Authorized person to Sign and Submit Reports corresponds with the person who meets the requirements identified in the Draft Permit Attachment D, section V.B.2, Signatory and Certification Requirements for signing permit applications (principal executive officer or ranking elected official). Subsection 3 further requires that all reports required by the Order and other information requested be signed by the person who meets the requirements specified in section V.B.2, or a duly authorized representative who has been authorized in writing by the person described in section V.B.2 with the written documentation being submitted to the Regional Water Board or State Water Board.

***Comment 4:** Page F-4, section II.A. The word “River” is missing following the first “Russian” in the sentence, “Basalt Pond is physically connected to the Russian within the Geyserville Hydrologic Subarea of the Russian River Hydrologic Unit.”*

Response 4: Regional Water Board staff agrees. Thus, the word “River” has been added to the sentence.

***Comment 5:** Page F-7, Table F-2. The table shows the lowest observed acute toxicity percent survival is 65% (ceriodaphnia).*

This was the round of testing that triggered accelerated monitoring and ceriodaphnia as the most sensitive species (as opposed to trout). The results of the accelerated monitoring were 100% and 95% survival, allowing us to return to the usual monitoring frequency for acute toxicity, but switching species from trout to ceriodaphnia. Problems continued with the chronic toxicity tests (only with ceriodaphnia reproduction), so we repeated testing several times before contacting another lab for a review of the toxicity results.

Since acute toxicity was no longer as pressing of an issue as the chronic, we didn’t request any review of the test at the time. The strange thing is that the samples for the Acute Toxicity Bioassay resulting in 65% survival (ceriodaphnia) were split from the same samples used in the concurrent three species Chronic Toxicity Bioassay that exhibited no toxicity in survival, growth or reproduction in any of the species, including ceriodaphnia.

The TUC approach, which has less tendency for false positives can still produce them. Where the TUC provided data to indicate that the results for the tests in question were suspect, the TST might not have been clear in indicating that the results might be suspect and re-testing is in order.

Response 5: Table F-2 provides a summary of historic effluent limitations and monitoring data. The table is strictly informational and does not carry any regulatory force. The City responded appropriately to the acute toxicity result that was lower than the permit effluent limitation by conducting accelerated testing.

No changes were made in response to this comment.

Comment 6: *Page F-12, section III.D, last sentence. This sentence should be revised to read, "The Study found that temperatures in the **effluent** are consistently a few degrees warmer than in **Basalt Pond** but data indicate that the influence on temperature on Basalt Pond are minimal."*

Response 6: Regional Water Board Staff agrees. Thus, the sentence has been changed to read as follows: "The Study found that temperatures in the ~~Basalt Pond~~effluent are consistently a few degrees warmer than in the effluent~~Basalt Pond~~ but data indicate that the influence on temperature ~~on in Basalt Pond~~are is minimal."

Regional Water Board Staff Initiated Changes

The following modifications were made to the Draft Permit by Regional Water Board staff after the public comment period closed. Regional Water Board staff discussed these modifications with the Permittee. The Permittee agreed to these changes.

1. Monitoring and Reporting Program, section IV.A, Table E-4 of the draft Order has been changed to require CTR priority pollutant monitoring three times during the permit term. This is the monitoring frequency that was included in Order No. R1-2010-0034 and is the minimum frequency required by U.S. EPA for major dischargers. This requirement is specified in U.S. EPA NPDES Form 2A, Part D, Expanded Effluent Testing Data. (page 10 of 21). The introductory paragraph to this data reporting section states "... At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old."

This change in monitoring frequencies resulted in additional changes to the MRP and Fact Sheet, as follows:

- a) MRP section VIII.A.1, Table E-6, Footnote 5 has been modified to require that the single receiving water CTR priority pollutant monitoring event "...occur simultaneously with the first effluent monitoring for CTR priority pollutants required by section IV.A of this MRP."
- b) MRP section X.B.4 has been modified to include a description of the monitoring period and reporting schedule for the 3X/5 years monitoring frequency. In addition, the SMR Due Date descriptions for "Annually" and "Once per permit term" monitoring frequencies were also modified for consistency with the SMR Due Date description added for the 3X/5 years monitoring frequency. The changes are shown in the following table:

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Annually	January 1 following (or on) permit effective date	January 1 through December 31	March 1, each year (<u>with annual report</u>)
<u>3X/5 years</u>	<u>Permit effective date</u>	<u>All</u>	<u>March 1 following the year that monitoring is completed (with annual report) with last data to be submitted at least 180 days prior to permit expiration</u>
Once per permit term	Permit effective date	All	<u>March 1 following the year that monitoring is completed (with annual report) and at least 180 days prior to permit expiration</u>

- c) Fact Sheet section VII.B.1.d has been removed because the CTR priority pollutant monitoring frequency is being reverted back to the frequency in Order No. R1-2010-0034, thus the description in VII.B.1.d is no longer needed because there is no change.

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