

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**RESPONSE TO WRITTEN COMMENTS**

ON THE REISSUANCE OF WASTE DISCHARGE REQUIREMENTS FOR:

Dow Chemical Company  
Pittsburg Facility  
Pittsburg, Contra Costa County  
NPDES Permit No. CA0004910

*Note: Dow Chemical Company submitted the following comments regarding the tentative order on April 7, 2008. Dow's comments are in italics, followed by staff's response in normal typeface. Interested persons should refer to the original letter in Appendix C for the full context of these comments.*

*Dow Comment 1*

*Section IV.2 of the Administrative Draft, Footnote 2 cites the Staff Report on Proposed Site-Specific Water Quality Objectives of Cyanide for San Francisco Bay. Dow suggests that Board Resolution R2-2006-086 for the cyanide Basin Plan amendment also be cited.*

Response 1

As suggested, we added a sentence to Table 7, footnote 3 (the one referring to cyanide) citing Regional Water Board Resolution R2-2006-086.

*Dow Comment 2*

*In Section IV.2, Footnote 4 (Table 8) and in Attachment E, Table E-1, Footnote 3, the minimum levels for the dioxin congeners are one half the lowest laboratory detection levels for the method specified in the monitoring and reporting program (EPA method 1613). Dow requests that minimum levels be used that meet the definition of minimum level in Attachment A to the administrative draft or that an explanation be provided in Attachment F why these minimum levels are required or appropriate.*

Response 2

The minimum levels in Table 8 for dioxin and furan compounds were developed in collaboration with Bay Area Clean Water Agencies (BACWA) as levels that were achieved by BACWA participants (BACWA letter dated April 23, 2002). Dow can achieve these levels, which are consistent with the minimum level definition in Attachment A.

*Dow Comment 3*

*Section VI.C.3. requires Dow to perform a Pollutant Minimization Program under certain conditions. Dow requests that this section state that this requirement does not apply to cyanide until the cyanide Cease and Desist Order has expired. Dow also requests that this section state that this requirement does not apply to dioxin*

*TEQ until the dioxin TEQ compliance schedule in Section VI.C.5 has been completed.*

Response 3

We are denying this request. Pollution Minimization Programs (PMPs) for cyanide and dioxin-TEQ need to be implemented as soon as practical. They were triggered because the effluent concentrations exceeded the respective WQOs. Some PMP requirements of Provision VI.C.3 may be duplicative of the requirements of Provisions VI.C.5, VI.C.6 and VI.C.7, the compliance schedule provisions for dioxin-TEQ and the action plans for cyanide and copper, respectively. However, we are requiring the PMP measures for all pollutants of concern to be combined in a single PMP report to facilitate compliance reviews.

Dow Comment 4

*Section VI.C.5, Table 8, Row b requires actions if the discharge is out of compliance with the Dioxin TEQ effluent limit. However, the Dioxin TEQ effluent limit is not in effect until 2018. Dow requests that the permit be clarified that the limit being referred to is the future limit. Also, Table 8 items d.iii. and e. require implementation of actions to reduce or eliminate dioxin-TEQ well before the ultimate compliance date of 2018. This should be optional or desirable but not mandatory.*

Response 4

We are denying this request. While the final dioxin-TEQ effluent limit does not go into effect until 2018, we are granting the compliance schedule to allow Dow time to achieve this level before it goes into effect. Provision VI.C.5 requires Dow to implement measures now to ensure that it complies with the dioxin-TEQ limit by 2018. Implementation of such measures is a necessary condition for the Regional Water Board to allow a compliance schedule (see Section 4.7.6 of the Basin Plan).

Dow Comment 5

*Dow requests that the Administrative Draft, Section VI.C.6, Table 9, be clarified to confirm that ambient monitoring will be performed as part of the Regional Monitoring Program. Dow suggests the following clarification:*

- Revise Table 9, Task 2.c to read as follows: “If ambient monitoring, performed through the Regional Monitoring Program, shows cyanide concentrations of 1.0 µg/L or higher, undertake actions to identify and abate cyanide sources responsible for the elevated ambient concentrations.”*

Response 5

We are denying this request. The Regional Monitoring Program doesn't currently monitor for cyanide. However, we have revised the tentative permit to clarify that the ambient trigger applies to the main body of the bay. This does not preclude consideration of Regional Monitoring Program cyanide data if acquired in the future.

### Dow Comment 6

*The basin plan amendment for copper requires an evaluation of copper sources as specified in the Administrative Draft, Section VI.C.7, Table 10, Task 1, but does not require implementation of facility-specific pollution prevention measures unless Dow exceeds its copper effluent limit due to increased copper influent loading. Dow requests that Section VI.C.7, Table 10 be revised to clarify pollution prevention implementation triggers and the responsibility for ambient monitoring. Dow suggests the following clarification:*

- Revise the compliance date of Table 10, Task 1 to read as follows: Within 90 days of effective date of alternate copper limits.*
- Revise Table 10, Task 2 to read as follows: The Discharger shall submit a plan for and begin implementation of a program to reduce copper discharges identified in Task 1 if the copper effluent limit is exceeded.*
- Revise the compliance date for Table 10, Task 2 to read as follows: Within 90 days of exceedance of the copper effluent limit.*
- Revise Table 10, Task 2.c to read as follows: If the three-year rolling mean copper concentration of the receiving water exceeds 2.8 µg/L, as determined based on data from the Regional Monitoring Program, evaluate the effluent copper concentration trend, and if it is increasing, develop and implement additional measures to control copper discharges.*

### Response 6

We are denying these requests. Regarding the first point listed above, the Action Plan for copper is driven by the June 16, 2007 Basin Plan amendment for copper SSOs, which concluded that water quality would not be degraded if effluent limits were derived for site-specific objectives. This conclusion was based, in part, on assumptions that dischargers would implement copper action plans and maintain their current performance. It is appropriate to implement the tasks in Table 10 as soon as practical, rather than 90 days after the alternate limits become effective as suggested because this permit contains higher copper limits than the previous permit. The need for special measures to ensure that these copper limits do not degrade water quality is similar to the need based on the SSOs.

Regarding the second and third points listed above, the purpose of the action plan is to maintain at least the existing level of water quality to ensure that water quality is not degraded. Waiting until the new SSOs come into effect as suggested means acting only after water quality is degraded. This is inconsistent with our anti-degradation policy. Also, it doesn't make sense to identify sources of copper without any effort to control them. Therefore, it is appropriate to implement source control measures as soon as possible rather than waiting until the SSOs come into effect as suggested.

Regarding the fourth point, we don't want to set restrictions on the origin of the data. Regional Monitoring Program data is acceptable, but we don't want to exclude other appropriate data.

Dow Comment 7

*Section VI.C.3 of the Administrative Draft only requires an annual pollution prevention submittal if there is evidence that a priority pollutant effluent limitation is exceeded. Dow proposes that the deadlines for Section VI.C.5, Table 8, Task e, Section VI.C.6, Table 9, Task 3, and Section VI.C.7, Table 10, Task 4 be revised to simply indicate that required reporting will be submitted on February 28 each year. (can this date be moved to April 30<sup>th</sup> to spread the reporting workload?)*

Response 7

See response to Comment 3. We want the above-listed tasks reported in the annual PMP report. However, we have no objection to moving the reporting date to April 30 as suggested.

Dow Comment 8

*Dow requests that Section VII.B be clarified by adding the following language:*

*“For purposes of reporting and administrative enforcement by the Regional and State Water Boards, when more than one sample result is available in a reporting period (month for AMEL or day for MDEL), the Discharger shall be deemed out of compliance when the average or median concentration as calculated in this subsection is greater than the effluent limitation and greater than or equal to the reporting level (RL).”*

Response 8

We are denying this request. Very similar language to that suggested above exists in Compliance Determination VII.A.

Dow Comment 9

*Section IV.1 of Attachment E specifies monthly monitoring of receiving water. Dow has been required to collect receiving water samples on a quarterly basis for at least the last 10 years. Dow understands that the administrative draft order has increased the receiving water sampling frequency from quarterly to monthly primarily to establish a basis for compliance with the salinity effluent limitation. Collecting monthly receiving water samples is burdensome. Dow requests that, if it demonstrates compliance with the monthly salinity effluent limitation during the first 12 months of the permit term, the receiving water monitoring frequency be reduced to quarterly sampling for the remainder of the permit term unless the salinity effluent limitation is exceeded, in which case monthly monitoring would be reinstated.*

Response 9

We have no objection. Receiving water monitoring has been changed from monthly to quarterly as suggested.

Dow Comment 10

*Attachment E, Section V.A.1 specifies that compliance with acute toxicity effluent limitations be evaluated using flow-through bioassays. However, Section 4.5.5.3.1 of the Basin Plan states:*

*“Dischargers are required to conduct flow-through effluent toxicity tests, except for those that discharge intermittently and discharge less than 1.0 million gallons per day (average dry weather flow). Such small, intermittent dischargers are required to perform static renewal bioassays.”*

*Dow’s discharge meets the requirement to qualify for static renewal bioassays because we discharge less than 1.0 million gallons per day and our discharge flow is intermittent, as affirmed in Section II.B. of the permit. Therefore, Dow requests that Attachment E, Section V.A.1 be revised to specify that compliance with acute toxicity effluent limitations will be evaluated using static renewal bioassays.*

Response 10

We have no objection. Section II.B of the MRP has been revised to allow static renewal bioassays.

Dow Comment 11

*Dow requests that the Regional Board indicate in Section V.A.2 of Attachment E that the Regional Board has determined the fathead minnow to be the most sensitive species. This will document that use of the fathead minnow is consistent with the requirement of Section IV.3.c of the permit.*

Response 11

The most sensitive species should be determined by the Discharger based on occasional screening tests. While Dow has done this for chronic toxicity tests, they have not done so for acute toxicity testing. Provision VI.C.8 has been added to the tentative permit to require a study to determine the most sensitive species for acute toxicity. Section V.A.2 of the MRP has been changed to reflect that the most sensitive species shall be used.

Dow Comment 12

*Attachment E, Section V.B.1.b. specifies *Halioyis rufescens* as the test species to be use for chronic monitoring. Dow is concerned that this is a salt water species that is not appropriate for Dow’s receiving water. Dow is using *Thalassiosira Pseudonana* in our current permit and this species has been identified in the most recent chronic sensitivity testing as the most sensitive. Dow requests to continue to use the *Thalassiosira Pseudonana* as our test species for chronic toxicity testing.*

Response 12

We have no objection. Section V.B.1.b of the MRP has been amended to allow the continued use of *Thalassiosira Pseudonana* as the test species for chronic toxicity testing.

Dow Comment 13

*Attachment F, Table F-4 on page F-5 and Section 2.a of Attachment F on page F-12 both list cold water habitat as a beneficial use of the receiving water. However, the Basin Plan does not include cold water habitat as a beneficial use for the San Joaquin-Sacramento. Delta. Dow requests that the list of beneficial uses be revised to remove the cold water habitat use.*

Response 13

We agree. Cold water habitat was listed in error in Table F-4 of the tentative order. Cold water habitat been removed from Table F-4 to correct this error.

**Additional Change**

In addition to the changes described above, the tentative permit was also revised to remove receiving water limits for ammonia from Section V.2.d. The maximum total ammonia concentration in the effluent over the past permit cycle was 0.40 mg/L as N, which is below 1.19 mg/L as N, the ammonia value that corresponds to the unionized ammonia objective of 0.16 mg/L. Since there is no reasonable potential to violate water quality objectives for ammonia, receiving water limits (and effluent limits) for ammonia are unnecessary. Section V.A. of the fact sheet has also been revised to reflect that the receiving water limit for ammonia has been removed.