

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Robert Schlipf)
MEETING DATE: June 13, 2012

ITEM: 7

SUBJECT: **Shell Oil Products US and Equilon Enterprises LLC, Shell Martinez Refinery, Martinez, Contra Costa County - Reissuance of NPDES Permit**

CHRONOLOGY: October 2006 - NPDES Permit Reissued
March 2010 – NPDES Permit Amended

DISCUSSION: The Revised Tentative Order (Appendix A) would reissue the NPDES permit for discharges from Shell's wastewater treatment plant and stormwater outfalls. Shell operates a petroleum refinery that processes about 150,000 barrels per day of crude oil. This results in a discharge of about 5.8 million gallons per day of treated wastewater to Carquinez Strait via a deepwater diffuser 500 feet offshore. Shell also discharges stormwater associated with industrial activities to Peyton Slough and Peyton Creek.

We received numerous comments from the San Francisco Baykeeper and editorial comments from Shell (Appendix B). We made revisions where appropriate. All changes proposed are described in the Response to Comments (Appendix C) and reflected in the Revised Tentative Order.

While our responses have resolved many of Baykeeper's concerns, Baykeeper indicated that it will testify at the hearing on at least the following issues: (1) reliance on a 25-year old dilution study to establish dilution credits, (2) use of a far-field background station to develop water quality-based effluent limits, and (3) lack of a quantitative reasonable potential analysis and priority pollutant monitoring at all stormwater outfalls.

On the dilution study issue, there is no reason to suspect that the discharge receives less dilution now than when the dilution study (using a dye tracer) was performed in 1987. The characteristics of the diffuser are the same and Shell's discharge rate is similar. Shell also modeled dilution at its outfall in 2001 and found that initial dilution was about twice as much as that found in the 1987 dye study. This validates the 1987 study as conservatively reliable, and, as further

validation, the Revised Tentative Order would require another dilution study prior to the next permit reissuance.

On the far-field background station issue, we maintain that using data from it to develop effluent limits is appropriate and results in limits that are protective. The far-field background station is part of the Regional Monitoring Program and is representative of water that will mix with the discharge on a baywide scale. Using it in permits provides a strong basis for the Board to continue to require Shell to support the Regional Monitoring Program. Using it also provides a stronger basis for restricting dilution credits. And as the analysis in the Response to Comments shows, the current use of a far-field “cleaner” background station, balanced against a conservative restriction on dilution credit, does result in equivalent or more protective limits.

Finally, on the issue of quantitative reasonable potential analysis and priority pollutant monitoring at all stormwater outfalls, recent court rulings do not require a numeric reasonable potential analysis for stormwater. We also do not expect stormwater to contain priority pollutants because areas likely to be contaminated are already routed for treatment at Shell’s wastewater treatment plant. However, as a check, the Revised Tentative Order would require priority pollutant monitoring at the stormwater outfall that discharges the most solids and, therefore, is of most potential for concern.

RECOMMEN-
DATION:

Adopt the Revised Tentative Order

CIWQS Place ID:

256695 (RS)

Appendices:

- A. Revised Tentative Order
- B. Correspondence
- C. Response to Comments