

APPENDIX B

Comments received from Chevron Staff on 5/19/2011 regarding the Tentative Order

Proposed Administrative Corrections to WDR Tentative Order

5/19/11

Page 8:

Comment: The number of tanks that have been retrofitted with leak detection bottoms (LDBs) and the outstanding number of tanks without LDBs were incorrect in the Tentative Order and will change over the life of the permit.

Proposed Action: Revise the following statement:

28. Poleyard Tankfield: There are 32 above ground petroleum storage tanks, with 24 in service with a total volume of about 2 million barrels. Most of these tanks have leak detection bottoms. There are a total of six impound basins including Lake Rushing, Lake Shramm (see below) and four others.

Page 9

Comment: Tanks in the Alkane tankfield have been dismantled

Proposed Action: Revise the following statement:

39. Alkane Tankfield: Historically, there were 40 tanks in this tankfield. Currently, no tanks are in active service in this tankfield.

Page 11

Comment: Tanks in the Alkane tankfield have been dismantled

Proposed Action: Revise the following statement:

52. Aboveground petroleum storage tanks are required to comply with the requirements of Chapter 6.67 Section 25270 of the Health and Safety Code. In part, the regulations require installation and utilization of a leak detection system for each regulated tank which has the potential to impact groundwater or surface waters. The Chevron Richmond Refinery operates approximately 160 aboveground petroleum storage tanks with a total storage capacity of approximately 600 million gallons. The majority of these tanks now have leak detection bottoms (LDBs), as Chevron has installed LDBs on all new tanks constructed at the Richmond Refinery and retrofitted old tanks with LDBs if they are kept in service after their steel bottoms need to be replaced.

Page 15 – (Response to comment from Baykeeper)

Comment (A. Friedman): Baykeeper objected to the language in Prohibition 16.b.ii which stated that the Discharger shall not cause "Further significant migration of pollutants through subsurface transport."

*Proposed Action: Revise the following statement as noted:
"Subsurface migration of pollutants associated with Chevron's operations to waters of the State beyond the Groundwater Protection System is prohibited."*

Chevron Response: This action is acceptable

Page 16

Comment: The Tentative Order calls for ALL reports to be prepared under the supervision and signed by a California registered engineer or geologist. Such reports include financial assurance documentation and bypass/release reporting, which should not need to be conducted/certified by an engineer or geologist.

Proposed Action: Revise the following statement to match the earlier language in Order 00-43:

Reporting Specifications

1. All technical reports submitted pursuant to this Order shall be prepared under the supervision of and signed by a California registered civil engineer, registered geologist, and/or certified engineering geologist.

Page 23-24

Comment: Chevron submitted financial assurance documentation on 7/29/2010.

Proposed Action: Revise the following statement to account for the recent submittal of financial assurance in 2010 and remain consistent with the 5 year requirement:

13. Financial Assurance:

COMPLIANCE DATE: Submitted with 2015 Annual Report then every five years thereafter.

Pages 28-29- (Response to comment from Baykeeper)

Comment (A. Friedman): With reference to the Post-Earthquake Inspection Report we requested in Provision 31 (Pages 28-29), they felt [Baykeeper] that Chevron should take steps to "prevent or abate water contamination" prior to the onset of an earthquake or a tsunami, and suggested that we ascertain your compliance with the State Lands Commission's Marine Oil Terminal Engineering and Maintenance Standards (MOTEM).

I am certain that you have taken many steps to prepare your facilities for both an earthquake or tsunami. I don't think we need to change this provision but I'd appreciate a quick summary of

what plans you have taken at the refinery; we could add a sentence to the description of the seismic risk in Finding 51 (page 11) summarizing how you are prepared for this risk.

Chevron Response:

Chevron agrees that Provision 31 does not need to be changed. Below is a suggested revision to Finding 51.

Seismicity

Earthquakes posing a threat to the refinery could occur along the Hayward, San Andreas and Calaveras faults. The maximum ground surface acceleration, calculated for soft to medium clay and silt sites, is expected to be 0.35g for an event originating from a Richter Magnitude 6.4 Maximum Probable Earthquake (MPE) at the Hayward fault about 3.7 km east of the site, or 0.35g for an event originating from a Richter Magnitude 7.75 MPE at the San Andreas fault located about 24 km west and 0.35g for an event originating from a Richter Magnitude 6.6 MPE at the Calaveras fault. In an effort to prepare for such an incident, Chevron routinely and systematically reviews all process facilities for potential hazards, including a seismic review of appropriate structures. In accordance with Federal, State and Local requirements, Chevron also maintains a facility emergency response plan and tsunami contingency plan for the Richmond Long Wharf.

May 16, 2011

Alan Friedman
San Francisco Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94590
AFriedman@waterboards.ca.gov

Sent via electronic mail

Re: Waste Discharge Requirements for Chevron Richmond Refinery

Dear Mr. Friedman:

Thank you for considering the following comments, which are submitted on behalf of San Francisco Baykeeper (“Baykeeper”) and our approximately 2,300 members. We are writing to provide comments to the Regional Board on the proposed Tentative Order (the “Order”) updating Waste Discharge Requirements (“WDRs”) and rescinding order No. 00-043 for the Chevron Richmond Refinery, 841 Chevron Way, Richmond, Contra Costa County (“Chevron”).

A. The Order’s Restriction of Migrating Pollutants is Impermissibly Vague.

According to Paragraph 16.b.ii of the Order, Chevron shall not cause “[f]urther significant migration of pollutants through subsurface transport.” The Order does not provide additional details or specifications on what constitutes “significant” migration. Without additional guidance, this provision is impermissibly vague. The particular requirement is different than it Chevron’s previous WDR order, which plainly states that “subsurface migration of pollutants associated with Chevron’s operations to waters of the State is prohibited.” Pg. 17, Order No. 00-043. The absolute prohibition on the migration of pollutants is much more clear and is a more stringent requirement. The Regional Board should revise the Order to reflect an absolute prohibition on the subsurface migration of pollutants.

B. The Order Does Not Adequately Address Earthquake and Tsunami Threats

The Order states that earthquakes could occur along the Hayward, San Andreas, and Calaveras faults, which pose a threat to the refinery, but the Order does not contain any seismic safety prescriptions. Pg. 11, ¶ 51. It is odd that the Order raises the specter of earthquake damage, but provides no particular prescriptions to avoid significant pollution discharges from the site in the event of an earthquake or tsunami. No information has been provided on the likely damage an earthquake or tsunami would cause, what harm to the public or the environment could occur, and what plans Chevron has in place to deal with such catastrophes. In ¶ 31, pg. 28, the Order requires that Chevron submit a Post Earthquake Inspection Report, but this report is due only after the damage is done, and is only a report that does not itself prevent or abate water contamination, and is only applicable to earthquakes with a Richter Magnitude 7 or greater. More information about planning and preparedness is also important and should be included in

Baykeeper Comments

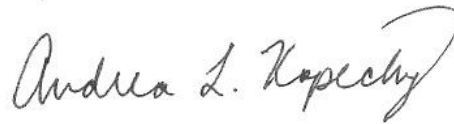
May 16, 2011

Page 2 of 2

the Order. At a minimum, prior to permitting waste discharges from the myriad structures described in the Order, the Board should require Chevron to demonstrate its compliance with the State Lands Commission's Marine Oil Terminal Engineering and Maintenance Standards ("MOTEM"). While compliance with these standards falls within the purview of another regulatory agency, the Regional Water Board should consult with the State Lands Commission as to the facility's compliance with the MOTEM standards, to ensure maximum feasible protection of water quality in the event of earthquake or tsunami. Such natural disasters cannot simply be written off as unavoidable Acts of God, when good engineering and maintenance standards can significantly lessen the environmental impact from oil refineries.

Thank you for considering these comments. Please contact me at (415) 856-0444 x 110 if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Andrea L. Kopecky". The signature is written in a cursive style with a large, looping initial "A".

Andrea Kopecky
Associate Attorney, San Francisco Baykeeper

Regional Water Board staff responses to Baykeeper comments:

1. Revise Prohibition 16.b.ii to absolutely prohibit migration of pollutants in GW, using the language in Order 00-043: “Subsurface migration of pollutants associated with Chevron’s operations to waters of the State is prohibited.”
AGREED – change made as requested.
2. Revise the WDRs to state the efforts Chevron takes **prior** to an earthquake to abate water contamination, not merely require a report **following** an earthquake.
AGREED – change made as described below.

Per a discussion with Chevron staff, the tentative order was revised to add the following language to Finding 51 (which describes the seismic risk to the refinery):

“In an effort to prepare for such an incident, Chevron routinely and systematically reviews all process facilities for potential hazards, including a seismic review of appropriate structures. In accordance with federal, State and local requirements, Chevron also maintains a facility emergency response plan and tsunami contingency plan for the Richmond Long Wharf.”

Chevron staff also notes that the Long Wharf is in full compliance, that seismic reviews are performed on an ongoing basis, and that any time they do structural work to a unit they initiate a seismic review.

Regional Water Board staff responses to Chevron comments:

1. Revise Finding 28 to accurately reflect the number of aboveground tanks (AGTs) with leak detection bottoms.
AGREED – change made as requested.
2. Revise Finding 39 to accurately reflect the number of AGTs in active service.
AGREED – (ditto)
3. Revise Finding 52 to accurately reflect the number of active AGTs and the number that have leak detection bottoms.
AGREED – (ditto)
4. Revise Reporting Specification 1 to require only technical reports to be prepared and signed by a registered professional.
AGREED – (ditto)
5. Revise Provision 13 to account for the recent submittal of financial assurance documentation.
AGREED – (ditto)

6. Chevron staff concurs with Baykeeper's suggestions above, and they supplied the pre-earthquake review language cited above.