



California Regional Water Quality Control Board Central Coast Region

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TO: Robert Trommer CHG
Chief, 5-Year Review Unit
Underground Storage Tank Cleanup Fund

FROM: Roger W. Briggs
Executive Officer

DATE: February 28, 2008

SUBJECT: **Specific Closure Criteria for the Central Coast Region**

This memorandum is in response to your February 20, 2008 request for additional Region-specific information on our internal process for evaluating a site for closure.

The Central Coast Region's "Water Quality Control Plan" (Basin Plan) designates all groundwater throughout the Region, except for that found in the Soda Lake sub-basin, as having the beneficial uses of domestic and municipal supply, agricultural supply, and industrial supply. Therefore, unless a discharger can demonstrate that it is infeasible, all effects of a discharge must be cleaned up, as all users of the water are entitled to a supply of drinking water that is free of petroleum constituents.

In practice, Central Coast Water Board staff consider the following criteria for typical constituents of concern to indicate a low risk case that can be closed:

Narrative

- the plume is well characterized,
- the plume is contained onsite,
- the plume is contracting or declining in size and concentration due to contaminant attenuation, (i.e., natural bioremediation or degradation of the constituents to harmless compounds)
- the contaminant mass has been removed from the site to the extent practical,

- historical monitoring data indicate the hydrocarbon constituent concentrations are expected to continue to decrease with time and are unlikely to reach a drinking water supply well before constituents completely attenuate,

Numeric

- less than 1,000 micrograms per liter ($\mu\text{g/L}$) total petroleum hydrocarbons (TPH),
- less than 1 $\mu\text{g/L}$ benzene,
- less than 5 $\mu\text{g/L}$ methyl tertiary-butyl ether (MTBE),
- less than 12 $\mu\text{g/L}$ tri-butyl alcohol (TBA)

The TPH and MTBE values have been established based on taste and odor thresholds, not health risks. The benzene value is based on the California Primary Maximum Contaminant Level (MCL), which is based on health effects data, but also contains other information relating to technical and economic feasibility of attainment in a water distribution system. The TBA value is based on California Department of Health Services (DHS) Notification Level, which is a health-based advisory level used by DHS for chemicals in drinking water that lack MCLs.

In addition to the above criteria, Central Coast Water Board staff also evaluate remaining soil and groundwater contaminant concentrations with respect to possible indoor air impacts, and soil concentrations with respect to direct human exposure and potential leachability to groundwater using the San Francisco Bay Regional Water Quality Control Board's environmental screening levels. Implicit in this evaluation of "all pathways" is the requirement to determine the location of all domestic and municipal wells and to develop a determination that the contaminants remaining in place will not impact water supply wells in the future. Central Coast Water Board staff also incorporate public participation elements as outlined in the State Water Resources Control Board's Final Draft, Public Participation at Cleanup Sites, April 2005, into our case closure considerations including notification of our intent to close a case to the property's fee title holders.

The Central Coast Water Board allows staff to close cases that have reached the narrative and numeric criteria listed above. For cases where site-specific information indicates that there is no threat to the environment or to supply wells at concentrations above our numeric criteria, the Central Coast Water Board allows staff to recommend a case for closure. In these instances, Central Coast Water Board staff outline the rationale for the recommended closure in a written

staff report that is presented in a Central Coast Water Board meeting agenda. We have generally been successful in gaining our Board's approval for our recommended closures for cases with contaminant concentrations above our numeric cleanup criteria when our narrative criteria have been met.

We look forward to working with your five-year case review team and the prospect of cleaning up more groundwater and bringing more cases to closure. If you have any questions, please contact Chris Adair at (805) 549-3761 or by email at CAdair@waterboards.ca.gov.

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