

## COMMENT LETTER\*

**TO:** State Water Resources Control Board  
Attn.: [USTClosuresComments@waterboards.ca.gov](mailto:USTClosuresComments@waterboards.ca.gov)

**FROM:** Kevin D. Brown, CEG #2180; [geobrown@earthlink.net](mailto:geobrown@earthlink.net)

**DATE:** September 15, 2015

**SUBJECT:** **Comments on Proposed Case Closure - Claim Number 4424  
Earthgrains Baking Company**

**SITE ADDRESS:** 955 Kennedy Street, Oakland, California 94606

**\*Disclaimer:** The views and opinions expressed in this comment letter are solely those of the author in his private capacity and do not in any way reflect the views of his employer or any related entity.

Dear State Water Resources Control Board,

I have reviewed the June 26, 2015, "UST CASE CLOSURE REVIEW SUMMARY REPORT" and the July 6, 2015, "NOTICE OF OPPORTUNITY FOR PUBLIC COMMENT" for the subject site. I have also evaluated information in GeoTracker, and compared the case attributes to the August 17, 2012, State Water Board's *Low-Threat Underground Storage Tank Case Closure Policy* (LTCP).

Page 2 of the closure summary states:

*There are no soil samples results in the case record for naphthalene. However, the relative concentrations of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2% benzene and 0.25% naphthalene. Therefore, benzene can be used as a surrogate for naphthalene concentrations with a safety factor of eight. Benzene concentrations from the Site are below the naphthalene thresholds in Policy Table 1. Therefore, estimated naphthalene concentrations meet the thresholds in Table 1 and the Policy criteria for direct contact by a factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.*

### Comments

- *There are no soil samples results in the case record for naphthalene.*
  - Since several reports in GeoTracker indicate multiple soil samples collected at the site were analyzed for naphthalene, is this statement correct?
  
- *However, the relative concentrations of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline.*
  - Since the available record indicates multiple unauthorized releases of diesel, and not gasoline, occurred at the site, is this statement accurate?

- *Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2% benzene and 0.25% naphthalene.*
  - Is this sentence referring to Volume 2 of the May 1998 “Composition of Petroleum Mixtures” by the Total Petroleum Hydrocarbon Criteria Working Group (TPHCWG)?
  - Using this TPHCWG Potter and Simmons (1998) reference, what is the ratio of benzene to naphthalene, by weight percentage, for diesel fuels? Isn’t this ratio approximately 1:9?
- *Therefore, benzene can be used as a surrogate for naphthalene concentrations with a safety factor of eight.*
  - Where in the LTCP or the accompanying technical justification document is a discussion on using benzene as a surrogate for naphthalene?
  - Were members of the LTCP Stakeholder Group, or toxicologists and risk assessors at DTSC or OEHHA, consulted about the appropriateness of using benzene as a surrogate for naphthalene?
  - Does the benzene to naphthalene 8:1 ratio apply to any petroleum hydrocarbon release to soil, regardless of the type and age of the discharge? For example, if gasoline was released into soil at an operating station in Sacramento, California in 1996, would the expected weight percentages of benzene and naphthalene in that gasoline still be 2% and 0.25%, respectively?

### **Closing**

Using the Potter and Simmons (1998) reference, naphthalene would likely be present at much higher concentrations than benzene in a typical diesel fuel. Diesel was released to soil at the subject site. Therefore, the “benzene as a surrogate for naphthalene argument” is invalid for this site and, for that matter, any petroleum release site where diesel was released. Per the LTCP, the concentrations of naphthalene in soil where diesel (and fuels with a similar composition) was released should be determined.

Thank you for accepting my comments. I look forward to receiving a written response.

Sincerely,



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