9/21/10 Bd Mtg. UST Case Closure - Gasco Deadline: 9/8/10 by 12 noon

commentletters - Former Desert Petroleum (Gasco) Station #758, I 505 30th Street, Sacramento		Peritigner Peritigner		
From:	Dennis O'Neill <denniskoneill@gmail.com> <commentletters@waterboards.ca.gov> Thursday, September 09, 2010 11:08 AM Former Desert Petroleum (Gasco) Station #758, Marvin Shacramento</commentletters@waterboards.ca.gov></denniskoneill@gmail.com>		SEP - 9 201	
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The following are my comments regarding the State Water Resources Control Board's UST Case Closure Summary, Objections to Closure and Response section, which details the County's finding that the site is not eligible for closure under our criteria:

Regarding the following:

1. A post remediation trend has not been established. (County's position)

This statement is accurate because no sampling data has been reported since active remediation was discontinued in March 2009. With the exception of benzene which indicates an overall stable trend, concentrations of the remaining petroleum hydrocarbon constituents indicate overall decreasing trends. Source area and plume concentrations are decreasing and were not detectable above reporting limits in downgradient wells before and during active remediation. As is typical during remediation involving a pressure inducing device such as the waterloo emitter within a source area, petroleum hydrocarbon constituents are mobilized and dissolved concentrations temporarily increase and then decrease similar to increases and decreases reported in MW-3 during remediation. Confirmation of the limited source area and decreasing trend at this site is demonstrated by the lack of petroleum hydrocarbon constituents in downgradient wells following an increase in dissolved concentrations in the source area. A post remediation trend is not needed.

Source area and plume concentrations are decreasing because a remediation system was operating within the impacted well! If no post remedial sampling has been done to establish that natural attenuation is occurring, how can a Registered Professional geologist for the State Water Resources Control Board recommend that this site be closed? No amount of arm waving can substitute for data! And Benzene is the carcinogen of concern at this site – that there is no decreasing trend in Benzene concentrations seems to be of no concern to this Professional Geologist!

Has this professional geologist never seen concentrations rebound after a system has been turned off? How then can this Professional Geologist then surmise, without data, that a post remediation trend is not needed? How can the provisions of the Porter-Cologne Act be met? Or even the criteria set out by the State Water Resources Control Board itself in its decision that sites if it can be shown that sites can reach Water Quality Goals within tens to hundreds of years - how can this criteria be met without factual evidence of a post remediation declining trend?

Is this Professional Geologist not aware that this opinion, not based on data but instead the urgency of the State Board to close sites could be jeopardizing his Professional license?

Regarding the following:

2. Vertical and lateral delineation in groundwater is not adequate. (County's comment) Residual petroleum hydrocarbon constituents in groundwater are limited to dissolved light-end petroleum hydrocarbons with specific gravities less than 1.0. The highest concentrations in soil were reported between 15 and 24 feet bgs in the source area near soil boring SB-1 and well MW-3. Further vertical delineation is not needed. Data from the six wells in the monitoring well network and five groundwater grab samples collected upgradient, crossgradient, and downgradient of the source area provide lateral delineation of the plume.

The assertion that vertical delineation of groundwater contamination is not warranted is not supported by other investigations in our area. Just because the specific gravities of the hydrocarbons is less than that of water (1.0) simply does not restrict the migration of the contamination downward. (Vapors migrate downward as a result of dispersion!) Both hydrocarbons and MTBE have migrated to lower water-bearing zones and yet have specific gravities lighter than water. Is the State Water Resources Control Board's Professional Geologist not aware of the many instances where gasoline contamination has reached progressively deeper groundwater-bearing unit?. I would suggest that he review the files for 3735 47<sup>th</sup> Avenue, 3900 Fruitridge Road, 4011 Freeport Blvd and 324 N 16<sup>th</sup> Street, Sacramento to name but a few of the sites where vertical migration is a FACT. Regarding the following:

4. A human health risk assessment has not been conducted. (County's comment)
All structures on the site are slab on grade and there are not subterranean spaces for vapors to accumulate. The remaining petroleum hydrocarbon mass is limited to soils between 15 and 24 feet bgs that underlie a paved parking lot and structural concrete slabs. At this site, over ten feet of unsaturated clean soil exists over the remaining mass. The building at the site is an auto repair facility adjacent to a major freeway and ambient air concentrations of petroleum are likely to greatly exceed any amount that could emanate from the subsurface. Therefore, the vapor intrusion risk from remaining petroleum at the site is insignificant.

Is it the State Water Resources Control Board's Professional Geologist's opinion that vapor can ONLY accumulate in subsurface structures such as basements? Has this professional geologist never seen the expansion joints in slab on grade foundations or the cracks that occur? And that because shallow soil samples did not contain sufficiently high levels of contamination, he can safely assume that vapors did not migrate vertically upward? Is he not aware that soil sampling for volatiles is inherently inaccurate because of the way a sample is processed in the laboratory and that vapor sampling is the best way to determine if vapors from the contamination are a risk to human health?

I sincerely hope that you will take these opinions seriously and not over-ride scientifically supported conclusions of the County in your rush to close sites.

Dennis K. O'Neill

Concerned Californian