



**SIERRA
CLUB**
FOUNDED 1892

Palos Verdes - South Bay Group / Angeles Chapter

February 13, 2015

Comments from Sierra Club on DNAPL (Dense Non-Aqueous Phase Liquid) cleanup from the Montrose DDT Superfund site in Los Angeles near Torrance:

The determination of a Technical Impracticability (TI) Waiver Zone needs to be revisited. Leaving large quantities of DDT and chlorobenzene underground puts groundwater resources forever at risk of contamination. If the DDT were a valuable resource like gold, it would already have been dug up. Water in California is a precious resource that should not be put at risk. The public should be offered the alternative of responsible parties removing the contamination and relocating it where it will not put ground water and human health at risk while being treated.

There are two important objectives for the DNAPL (Dense Non-Aqueous Phase Liquid) cleanup from Montrose DDT facility in Los Angeles near Torrance. The first objective is safeguarding groundwater from contamination, especially groundwater used for drinking water. The second objective is safeguarding the health of people living and working in the area.

The so-called "lower cost" alternatives, especially Alternative 1, No Action, are only lower cost if water quality and human health are assigned no value. In reality, water is precious in California, and human health is precious everywhere. The less stringent cleanup methods, by allowing continuing and expanding contamination of groundwater, would only be postponing and making more expensive the groundwater cleanup that would eventually be necessary.

Alternative 6A, Electrical Resistance Heating for a Focused Treatment Area, is stated to be most effective in protecting groundwater from contamination, but it is not clear why Alternative 6B, Electrical Resistance Heating for the Entire Treatment Area, would be less effective. Alternative 6B would seem to do more cleanup, and if so, should be preferred.

In either case, treatment to reduce the concentration of pCBSA (p-chlorobenzenesulfonic acid) in re-injected groundwater needs to be adequate to protect groundwater from contamination, in order to protect public health. If it is necessary to promptly start operation of the DNAPL cleanup system to protect groundwater from contamination by chlorobenzene, a larger, more effective treatment process to remove/degrade pCBSA (p-chlorobenzenesulfonic acid) needs to be constructed and put into operation as soon as possible.

To safeguard the health of people living and working in the area, there needs to be sampling and analysis of air beneath and in homes in the area to establish a baseline before DNAPL cleanup treatment begins, with frequent repeat sampling and analysis of air while treatment is occurring. If air beneath and in the homes has a significantly increased concentration of volatile contaminants after DNAPL cleanup treatment has begun, the DNAPL cleanup treatment process must stop to allow troubleshooting or the residents must be relocated.

To address the issue of remaining DDT and chlorobenzene within the Technical Impracticability (TI) Waiver Zone, the EPA should solicit proposals and make grants for further treatment methods. In particular, consideration should be given to biological forms of treatment, although of course this could introduce its own set of problems, which should be carefully investigated before implementation. There reportedly is some biological degradation of DDT in sediments on the Palos Verdes Shelf, showing that microbes can degrade this material.

Sincerely,

/s
Alfred Sattler
Chair
Palos Verdes-South Bay Regional Group
Sierra Club