Paul Sonnenfeld

Ms. Graber,
Thank you for the opportunity to review the Draft Feasibility Study for Occidental Chemical Company facility at 605 Alexander Avenue in Tacoma.

I have a few short comments regarding this site and the FS.
1) Occidental Chemical Company's 2016 Annual Report to Shareholders (10K report) lists its total environmental liabilities for all of the firm's closed plants as $140 millions. Based upon the cost estimates provided in the FS (e.g. $401 million for M9 and $142 million for M8), it may be prudent for the Department of Ecology to secure financial assurance for remediation of property at 605 Alexander. Occidental Chemical Company may not have reserved adequate funds to complete the projected remediation schedule.
2) I agree with the conclusion of the FS that sheet piling should be installed to an adequate depth to prevent the migration of subsurface contamination to Hylebos. It does not appear that the concept of freezing the soil and shallow groundwater beneath the site, once the sheet piling is installed was considered. You will note that the groundwater beneath the crippled Fukushima Daiichi was frozen to prevent a radioactive plume of contaminated groundwater from reaching the ocean. While this option does not remove the chemicals of concern, it would prevent their continued migration.
3) The in situ chemical oxidation option appears to focus on the use of alkaline persulfate. I did not see a review of the costs and benefits of using potassium permanganate as the oxidizing agent. I fully understand that a higher level of PPE is required when handling KMnO4, but the chemical persists longer in the saturated zone and may be adequately aggressive to oxidize the chlorinated hydrocarbons and achieve the desired mass reduction.
4) The FS briefly explores excavation and off-site disposal of contaminated soil with an estimated transportation and disposal cost of approximate $720 per ton. May I suggest that this cost estimate be confirmed using rail to transport the contaminated soils to a permitted TSDF. Is there a permitted TSDF with capacity to receive the estimated volume of waste?

Respectfully yours,

Paul Sonnenfeld