Oregon
Kate Brown, Governor

Department of Environmental Quality
Northwest Region
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March 24, 2022 *sent via email*

Deborah Taege
The Boeing Company
EHS Remediation
Bldg. 10-20, MC 9U4-26
800 N 6th Street
Renton, WA 98055-1409

RE: Final SVE Optimization Report Former Vapor Degreaser Source Area
Boeing Portland, Troutdale Gravel Aquifer, Gresham, Oregon. ECSI #13

Dear Ms. Taege:

The Oregon Department of Environmental Quality (DEQ) has reviewed the document entitled *Final SVE Optimization Report, Former Vapor Degreaser Source Area, Boeing Portland, Troutdale Gravel Aquifer, Gresham, Oregon*, dated February 25, 2022. This report was prepared on your behalf by Landau Associates' Seattle office. DEQ approves the *SVE Optimization Report*.

The work reported in this document delineated the area of sub slab soils containing halogenated VOCs to a localized area to the west and southwest of the former vapor degreaser location within Boeing building 85-001. The delineated source soils are located a short distance beneath the building foundation and contain adequate contaminants to diffuse VOC vapors to a number of sub slab soil vapor sampling points. Some sub slab soil vapor sampling points exceeded the applicable DEQ Risk-Based Concentration for trichloroethylene (TCE) of 2,900 $\mu g/m^3$ during recent rebound SVE monitoring sampling and analysis. The report presents a plan to optimize soil vapor extraction on the identified source soil area.

DEQ approves of the proposed optimization steps:

- Shut off vacuum from soil vapor extraction wells located east and north of vapor degreaser location which did not produce elevated TCE rebound concentrations following SVE system shut down.
- Increase vacuum flow rate to soil vapor extraction wells located in areas which did produce elevated concentrations of soil vapors during rebound testing in soils which are relatively permeable or transmissive allowing adequate air diffusion.
- Decrease vacuum flow rates to soil vapor extraction wells in tight, air diffusion-limited soils which inhibit contaminant vapor movement and recovery.

Please consider, with the understanding that source soils are located near to the surface, and that the existing soil vapor extraction wells are constructed with long screened intervals, a temporary packer placed in selected soil vapor extraction wells could focus soil vapor removal at the target horizon.

Please feel free to call me with questions.

Sincerely,

Kenneth Thiessen, RG, CEG
Northwest Region Cleanup Section

cc: Jenny Green, EIT, Landau Associates
Evelyn Ives, PE, Landau Associates
Piper Roelen, PE, Landau Associates
Dan Hafley, RG, DEQ Northwest Region

ECSI #13