

February 22, 2019

Mr. Ed Jones, Project Manager
Washington State Department of Ecology
3190 160th Avenue Southeast
Bellevue, Washington 98008-5452

BY EMAIL ONLY

**RE: CAPITAL INDUSTRIES PLANT 4 INTERIM ACTION
SOIL VAPOR EXTRACTION PILOT TEST SCHEDULE
CAPITAL INDUSTRIES, INC.
5801 THIRD AVENUE SOUTH, SEATTLE, WASHINGTON
AGREED ORDER NO. DE 10402
FARALLON PN: 457-008**

Dear Mr. Jones:

Farallon Consulting, L.L.C. (Farallon) has prepared this letter on behalf of Capital Industries, Inc. (CI) to provide the Washington State Department of Ecology (Ecology) with a proposed schedule for conducting a soil vapor extraction (SVE) pilot test as part of the ongoing feasibility study being conducted at the Capital facility at 5801 3rd Avenue South in Seattle, Washington (herein referred to as the Capital Site). This letter has been prepared in accordance with Agreed Order No. DE 10402 dated April 23, 2014 and the First Amendment to Agreed Order No. DE 10402 dated November 20, 2017 entered into by potentially liable persons that include Capital; Art Brass Plating, Inc.; Blaser Die Casting Co.; and PSC Environmental Services, LLC (Burlington Environmental, LLC is a wholly owned subsidiary of PSC Environmental Services, LLC, which is a wholly owned subsidiary of Stericycle Environmental Solutions, Inc.); and by Ecology (collectively referred to as the Agreed Order). CI and the other potentially liable persons listed above are collectively referred to as the West of 4th Group. The West of 4th Group site under the Agreed Order consists of Site Unit 1 and Site Unit 2. The Capital Site is in Site Unit 2.

BACKGROUND

CI agreed to conduct an interim action at CI Plant 4 in 2017. The interim action objectives are tied to the remedial action objectives for the Site, described in the *West of 4th Site Unit 2 Feasibility Study, Seattle, Washington* dated August 11, 2016, prepared by West of Fourth Group and Pacific Groundwater Group (SU2 FS Report) and include:

- Reducing concentrations of chlorinated volatile organic compounds (CVOCs) in soil beneath CI Plant 4 to concentrations less than the preliminary cleanup levels (PCULs) for the Site to reduce inhalation risks to acceptable levels; and



- Reducing concentrations of CVOCs in shallow groundwater that allegedly originated from CI Plant 4 to concentrations less than the PCULs for the Site.

The potential active cleanup technologies evaluated and the media to be remediated were:

- In-Situ Chemical Oxidation (ISCO) (soil and groundwater);
- Soil excavation and off-Site disposal (soil);
- Soil vapor extraction/air sparging (soil and groundwater);
- Enhanced anaerobic biodegradation (groundwater); and
- In-situ chemical reduction (groundwater).

ISCO was the preferred cleanup technology for soil and groundwater due to its ability to be implemented with minimal interference with operations at CI Plant 4, and its ability to rapidly treat the low levels of CVOCs present in soil and groundwater.

CI conducted a Stage I ISCO pilot test at CI Plant 4 between June and October 2018. The results of the pilot study indicated the following:

- ISCO was not technically feasible or cost effective for treating CVOCs in shallow soil;
- Groundwater in the shallow Water Table Interval beneath CI Plant 4 did not exceed PCULs; and
- The performance soil sampling results detected higher concentrations of trichloroethene in shallow soil at the drum storage area than previously had been detected.

Due to the elevated CVOC concentrations, including trichloroethene at the drum storage area, an alternative cleanup technology will be proposed for further assessment for the interim action. SVE was selected as the second preferred cleanup technology. Application of SVE will be more intrusive than ISCO but less invasive than soil excavation, which cannot be effectively completed without impacting CI business operations and possibly the structural integrity of the CI Plant 4 canopy area at the drum storage area. A variation of the SVE technology is being applied at the east-adjacent Pacific Food Systems North Building to control vapor intrusion into that building, suggesting that application of SVE at CI Plant 4 for treatment of shallow soil in the vadose zone is likely to be technically feasible.



PROPOSED SCHEDULE

The milestones associated with implementation of the SVE pilot study and the potential schedule to achieve those milestones is provided below.

Milestones

Anticipated Schedule

Submittal of Draft SVE Work Plan

Within 45 Days of Ecology authorization to proceed with a pilot test of the SVE cleanup technology.

Submittal of Final SVE Work Plan

Within 15 days of receipt of Ecology comments on the Draft SVE Work Plan, assuming Ecology comments are minimal.

Completion of SVE Pilot Test

Within 30 days of Ecology approval of the Final SVE Work Plan, which includes time required to obtain laboratory analytical data.

Submittal of Draft SVE Pilot Study Completion Report

Within 45 days following receipt of the final laboratory analytical data.

Submittal of Final SVE Pilot Study Completion Report

Within 15 days of receipt of Ecology comments on the Draft SVE Pilot Study Completion Report, assuming Ecology comments are minimal.

Submittal of Draft SVE System Design and Implementation Work Plan

Within 60 days of Ecology approval to proceed with SVE implementation.

Submittal of Final SVE System Design and Implementation Work Plan

Within 30 days of receipt of Ecology comments on the Draft SVE System Design and Implementation Work Plan, assuming Ecology comments are minimal.

The milestones above are anticipated to be sufficient at this time. If the SVE technology is technically feasible, the remaining details regarding construction and startup will be provided based on the SVE system design details and discussions with CI regarding an implementation schedule that can be completed without significant impacts to CI Plant 4 operations.



CLOSING

Farallon trusts that this letter provides sufficient information for Ecology needs. If you have questions regarding this project, please contact either of the undersigned at (425) 295-0800.

Sincerely,

Farallon Consulting, L.L.C.

Jennifer L. Moore
Senior Scientist

Jeffrey Kaspar, L.G., L.H.G.
Principal Geologist

cc: Ron Taylor, Capital Industries, Inc. (by email)
Donald Verfurth, Gordon and Rees, L.L.P. (by email)

Email with link to electronic copy on project website:

Janet Knox, Pacific Groundwater Group
Dana Cannon, Aspect Consulting
Bill Carroll, Arrow Environmental
Bill Beck, PSC Environmental Services, LLC

JM/JK:tlc