

PROJECT SNAPSHOT

ISS/ISCO at Small Former Dry Cleaners

ISCO/ISS

Location: Seattle, Washington

Reagent: Klozur SP & Sodium Hydroxide

Client: Confidential Client

Value: \$175,000

Contamination: CVOCs

Project Duration: 2 Weeks

Project Approach

Cascade performed in-situ chemical oxidation (ISCO) and in-situ stabilization (ISS) on the site of a former dry-cleaning business. A total of 1,172 cubic yards (CY) of soil, impacted by chlorinated volatile organic compounds (cVOCs), were treated using Klozur® SP (KSP), sodium hydroxide (NaOH) and Portland cement (PC). The site was prepped prior to Cascade's arrival, with soil removed to two feet below ground surface (bgs). The total treatment area, 38 feet by 98 feet by 8 feet deep, was divided into 15 separate cells, each approximately 265 square feet. Working cell by cell, the soil was treated in two four-foot lifts. The top four feet from 2 to 6 feet bgs was removed and placed adjacent to the cell. Soil from ten feet bgs to six feet bgs was then blended with 2.1 tons of PC, 7.3 gallons of NaOH and 1,100 pounds of KSP, using an excavator-mounted Alpine rotating mixing head. The previously excavated soil was then replaced and soil from six feet bgs to two feet bgs was mixed with an additional 2.1 tons of PC, 7.3 gallons of NaOH and 1,100 pounds of KSP. Water for the mixing was sourced from a nearby church hose bib, and then from a municipal water fire hydrant.

WHAT MAKES THIS PROJECT UNIQUE?

The site was very small, within a mixed residential and small business neighborhood. Field crews had to be extremely cognizant of surroundings, to minimize noise, dust and traffic impact on the neighborhood. Since both the work site and mixing area were limited, a stand-alone batch plant on site for the Portland cement was not feasible. The field crew coordinated with a local cement supplier to deliver pre-mixed and appropriately sized loads cement since the area provided minimal storage and pre-mixed PC reduced the potential for nuisance dust.



Project Results

Over 200 man-hours were logged without incident. Cascade provided additional, out of scope services including disposal of the packaging materials (i.e., pallets, bags and drums) from the reagents as well as trees and stumps that were left on-site from previous site preparation activities - at the client's request. The project was completed on time and within budget.

CONTACT

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