Pre-Characterization Assessments of Electrical Substations, Various VELCO Properties Throughout Vermont

STONE ENVIRONMENTAL

Services / Expertise

Environmental Due Diligence
Phase II ESA (ASTM E1903-11)
Vermont DEC Work Plan
Site-Specific Health and Safety Plan
Soil and Building Material Sampling
Supplemental Site Investigation/Phase III ESA
Building Material Assessment (PCBs, lead, and asbestos)
High Resolution Site Characterization
Remedial Action Planning – ECAA & CAP
TSCA Self-Implementing, Risk-Based, and Performance-Based Cleanup & Disposal Plans
Preparation of Plans, Specifications, and Engineering Documents
Green & Sustainable Remediation

Markets

Utility
Commercial
Site / Property Owner

Project Locations

Barre, Berlin, Milton, St. Johnsbury, Florence, Irasburg, Middlebury, Rutland, and Highgate Vermont

Date Completed

2016 to present

Project Owner

Vermont Electric Power Company (VELCO)

Project Team

Lee Rosberg (Project Manager)
Daniel Voisin
Kim Watson
Katrina Mattice, PE
Dan Curran
Laura Rajnak
Warren Rich
Aaron Rice

Left: Cleanup of PCB-contaminated soil at the Barre substation. Right: Oil-stained soil identified during a site inspection at the Milton substation.

SINCE 2016, Stone's supported Vermont Electric Power Company (VELCO) with pre-characterization assessments of their electrical substations throughout the State of Vermont. These assessments investigate the degree and extent of potential contaminants in substation soil and building materials from spills from oil-containing electrical equipment, use of asbestos-containing materials, or other site-specific potential contaminant sources. They also support VELCO's Section 248 notifications to the Public Utility Commission before electrical substation renovations, which have previously included entire substation rebuilds.

To develop appropriate work scopes, Stone's Environmental Assessment and Remediation team employs high-resolution site characterization and dynamic sampling strategies to minimize iterations of fieldwork and shorten project timelines. Stone collects depth-discrete samples from soil borings near current and historic oil-containing electrical equipment in a manner that supports polychlorinated biphenyl (PCB) site characterization following Toxic Substance Control Act (TSCA) regulations and preparation of TSCA-compliant cleanup plans. Stone employs a sampling logic to archive soil samples and only analyze those required to delineate the extent of the contamination.

To date, Stone has prepared and implemented three Performance-Based Cleanup Plans for excavation and offsite disposal or thermal treatment of PCB-contaminated soil. A fourth Performance-Based Cleanup Plan was recently prepared for the North Rutland substation, and we anticipate preparing a PCB cleanup plan for a Middlebury site following completion of assessment this year. Cleanups have been performed to Vermont Soil Standards for residential properties so that long-term monitoring and institutional controls are not required. Stone has also prepared Materials Management Plans for VELCO that provide guidance on how VELCO and their contractors should handle various waste streams generated during electrical substation rebuilds.