



ENVIRONMENTAL MANAGEMENT PLAN FOR DECOMMISSIONING AND RECLAMATION
OF ELECTRICAL FACILITIES

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Questions regarding this document shall be submitted to:

Tim Follensbee II
VELCO Environmental Team
Office: 802-770-6423
tfollensbee@velco.com

PURPOSE AND OVERVIEW:

The lifecycle of the electrical transmission system eventually requires the decommissioning and reclamation of electrical facilities. This document is VELCO's environmental management and sampling plan for these decommissioning activities. The plan provides VELCO's standard practices that, subject to reasonable modifications to suit site-specific conditions or safety concerns, VELCO follows to decommission electrical facilities. In general, facility decommissioning includes three phases; phase one is the preliminary site investigation, phase two is the decommissioning activities, and phase three is the restoration activities. Each phase is outlined in more detail below. This plan is intended for individual transmission sites such as substations, storage, maintenance and office facilities. This plan is not intended for linear facilities such as fiber optic communication or electric transmission line decommissioning.

PHASE 1: PRELIMINARY SITE INVESTIGATION:

- Review facility information to determine design elements (e.g. facility age and past upgrades, oil filled equipment locations, oil testing records, oil containment system/s, grounding specifications, drainage piping, wastewater and water supply connections, foundation depths, etc.).
- Review available documentation to determine if any releases of oil or hazardous material (OHM) have occurred at the facility and if so, review past remediation activities.
- Review available natural and cultural resource data and site-specific permits and commitments to determine areas that may affect decommissioning work and identify specific restoration practices that may be required.
- Conduct a comprehensive inspection of the facility for evidence of OHM releases that includes a review of visible staining and/or olfactory indicators.
- Perform asbestos, lead-paint, and PCB surveys of building materials and/or equipment, as applicable based upon the information review and vintage of the building and/or equipment.
- Collect pre-characterization soil and concrete samples from the site and analyze for the presence of OHM, as informed by the design elements, vintage and history of the site. Sampling locations should target areas surrounding current or former locations of oil filled equipment, areas of past releases, and areas of staining observed during sampling. Samples collected at typical VELCO facilities should be analyzed based upon the results of the investigative steps listed above and target the specific contaminants that may have been released at the site. At most facilities this typically includes, PCBs and TPH-DRO, and may also include RCRA 8 Metals, VOCs and/or SVOCs.
- For most facilities that have or had oil containing equipment and specifically at VELCO substations, VELCO's pre-characterization sampling effort seeks to achieve the following:
 - Perform discrete soil sampling beneath oil containing equipment (OCE) drain valves and at areas of staining
 - Perform composite soil sampling, as appropriate, for portions of the developed site where earth disturbance and off-site soil disposal is anticipated,
 - Perform 10' grid-based soil sampling beneath the capacitor bank(s) at substations, provided the substation and capacitor bank(s) are of the vintage likely to contain PCBs,
 - Perform inspections of visible concrete including substation control building slabs for areas of staining and sample for PCBs, as appropriate based on the vintage of the facility and/or equipment

PHASE 1: PRELIMINARY SITE INVESTIGATION (cont'd):

- If the pre-characterization sampling results demonstrate that Vermont Dept. of Environmental Conservation (VT DEC) Waste Management and Prevention Division (WMPD) or the US Environmental Protection Agency regulatory thresholds have been exceeded, VELCO will:
 1. Make appropriate notifications to the VT DEC-WMPD and any other applicable regulatory agencies
 2. Work in collaboration with the applicable regulatory agencies to develop site-specific work plans to delineate the extent and magnitude of the contamination,
 3. Develop appropriate remediation work plans in collaboration with the applicable regulatory agencies, to be executed during the decommissioning activities to ensure compliance with applicable state and federal regulations (e.g. IRule¹)

PHASE 2: DECOMMISSIONING ACTIVITIES:

The conventional activities outlined below for both phase two and phase three should be individually considered as they apply to a specific site. These activities are in no specific order and are not intended to be all-inclusive. However, these activities are intended to provide a reference to be considered and/or and utilized throughout the decommissioning process.

- Whenever possible, and in coordination with VELCO Operations and Construction, completely de-energize the site to ensure a safe working environment at the facility.
- If applicable, execute the remediation work plan(s) that were developed in phase 1. This work should be performed in consultation with appropriate regulatory agencies. Remove fencing and aboveground electrical equipment and conductors.
- Maintain safe and secure storage of the decommissioned oil containing equipment awaiting reuse, recycle or disposal.
- Remove any accumulated rainwater in on-site containment systems (if present).
- Remove containment systems and drainage piping.
- Remove surfacing stone.
- Remove concrete foundations entirely or (if not practicable to remove entirely) remove concrete foundations to a depth of approximately four feet below ground surface, and cut exposed rebar.
- Remove building/s and other above-ground structures and improvements.
- Recycle, and/or dispose of, all Universal and Electronic waste generated during decommissioning in accordance with applicable State and Federal rules and regulations.
- Remove and/or fill septic tank/s and piping in accordance with Vermont state rules and regulations.
- Remove any underground fuel storage tanks in accordance with Vermont state rules and regulations.
- Remove well pump and associated electrical wires and piping and close out well in accordance with Vermont state rules and regulations

¹ *Investigation and Remediation of Contaminated Properties Rule* (VT DEC- WMPD)

PHASE 2: DECOMMISSIONING ACTIVITIES (cont'd):

- Decommission transmission line structures in accordance with applicable BMPs.
- Remove grounding wires and anchor assemblies.
- Remove all underground conduits and cable trenches that are not below the four-foot depth to the finish grade.

PHASE 3: RESTORATION ACTIVITIES:

- Install erosion controls, as needed
- Place topsoil (loam or previously segregated soils) over disturbed areas, matching native soil profiles to the extent practicable.
 - Topsoil should be free of large stones and woody debris.
 - Avoid mixing topsoil with subsoils.
 - Avoid driving on the topsoil with heavy equipment during wet conditions to avoid severe soil compaction.
- Grade soil to obtain slopes between 0% and 8%, with no concave areas where water can collect.
- Seed all disturbed areas with a VELCO-approved seed mix.
- Mulch all seeded areas with a minimum of 2 tons/acre of hay mulch.
- Remove all trash, unneeded erosion controls, and other debris from the site.