

# > Secondary Containment Evaluation for Oil Filled Equipment

Novi, Michigan



## DESCRIPTION

ECT designed a secondary containment and SPCC compliance evaluation project for ITC to evaluate the need to retrofit additional containment at newly acquired and existing substations. ECT evaluated 350 substations and selected 117 stations for secondary containment evaluation due to potential environmental exposure, capacity of oil in the equipment, and the presence of discharges off-site from on-site storm sewer systems and/or underdrain systems and/or trenchways. ECT inspected and evaluated each selected site for potential exposure and condition of existing controls and determined the type and porosity of soils. ECT prepared a final report, including a general discussion of typical secondary containment and stormwater control strategies and methods. The report provided a complete list of substations with containment and dewatering recommendation options specific to each station.

Our philosophy regarding secondary containment, from an environmental perspective, is to provide the most practical and effective site-specific method for environmental protection. Following is an overview of general containment systems and stormwater controls recommended at the various stations:

- > Structural containment for individual equipment, including impervious and stone-filled pit, concrete dike/vault, composite systems, and impervious surface berm.
- > Structural control for entire substation, including utilization of substation mat, fence line impervious berm, in-line stormwater environmental controls to underdrain systems, and oil-retention ponds.
- > Stormwater environmental controls and dewatering, including in-line oil-water separators, flow blocking systems (specific gravity based), oil absorbents and solidifiers (polymers), and smart pumps and valves (conductivity based).
- > Alternatives to secondary containment, including replacement of oil-filled equipment (SF6 gas) and an oil spill contingency plan.

## CLIENT

ITC Holdings Corporation

## PROJECT TIMELINE

August 2006 - Ongoing

## PROJECT HIGHLIGHTS

Spill Prevention Control & Countermeasure (SPCC) Compliance