

Secondary Containment: Dike Method of a Single Transformer

London, Ohio – November 2007

C.I.Agent Solutions® was asked to provide an SPCC solution with an 18 inch C.I.Agent® Barrier Boom to surround a 30 foot x 40 foot transformer slab. The customer wanted as small a footprint as possible to contain the entire amount of oil in the unit with additional freeboard to handle some precipitation.

It was calculated that the area necessary for total containment around the unit would need to be approximately 10 feet out from the transformer slab. A trench was dug into the six inch gravel base to reach the impervious clay subsurface. An 18 inch tall C.I.Agent® Barrier Boom was placed into the trench; six inches below the grade level and 12 inches above the grade level. The barrier boom was held in place with rebar. A bead of powder Bentonite was poured into the trench to form a seal around the edge of the barrier boom. Clean gravel was then placed on both sides of the barrier boom to hold it in a vertical position. The rebar was later removed.



Cost Comparison

	C.I.Agent®	Concrete or Composite Wall Had they not used C.I.Agent®
Equipment:	Trencher, shovels, rakes, rebar, hammer, front-loader	Variety of construction equipment
Materials:	150' x 18" C.I.Agent® Barrier Boom Fire-retardant, clean gravel (1-2")	Multiple materials
Oil Contained:	9,600 gallons	9,600 gallons
Man Hours:	12 man hours (3 men, 4 hours each)	Concrete - 28 days for curing Composit Wall - 2-3 days labor
Impact on Facility:	None	Possible shut down
Total Billing for Product & Labor	Below \$8,500.00	\$50,000+ for concrete w/sump, drain \$45,000+ for composite wall w/sump, drain

Benefit Summary: By their own estimates, the Utility experienced approximately 75- to 85-percent cost reduction in time and labor savings.