OLD 1793 POLYETHYLENE UNIT

DECONTAMINATION & DEMOLITION

Key project components:

- All work done by USA personnel with USA-owned equipment
- Asbestos and lead abatement
- Identification and mitigation of hazardous chemicals: Tri-ethyl aluminum, Titanium Tetrachloride, Ethylaluminum dichloride
- Work performed in level B PPE with supplied air
- Over 6,000 man-hours without an OSHA recordable incident

Description of Work

USA Environment, LP (USA) was contracted for the decontamination and demolition of a former Polypropylene unit. The project included decommissioning, demolition and closure of transformer buildings and packaging warehouses, process units and related blending units, chemical storage tank farms, flare stack and flare knockout drum, stormwater and wastewater holding and treatment facilities, and 2 wastewater treatment ponds. USA developed a site-specific health and safety plan, waste management plan, and stormwater pollution prevention plan.

The facility had no documentation on the existing equipment, therefore there was no record of possible contents left in equipment and piping, hazardous potential of contents, nor whether the existing equipment and piping was coated with lead containing paint or covered with asbestos containing insulation. All equipment, piping and contents were treated as hazardous until successfully identified.

USA performed the de-oiling, de-energizing and isolation of more than 80 above grade tanks and vessels (ranging in size from 200 bbl to 50,000 bbl), location, tracing and cleaning of more than 4,000 linear feet of both above grade and below grade piping (ranging in size from 1 inch to 6 inch), and the de-energizing and isolation of more than 45 motor control centers and electrical distribution panels.

All tanks were de-gassed and cleaned to remove residual materials prior to demolition. Tanks containing alkyls were put under a nitrogen purge to mitigate associated hazards prior to cleaning the contents. USA hydraulically and pneumatically isolated multiple manifolds and valve pits. The removal of all liquids and hydraulics from these manifolds was accomplished prior to the piping manifolds being de-oiled and cleaned.

Any exposed ends of underground pipes were cut to grade and filled with a bentonite-cement slurry or concrete to seal. Both wastewater ponds were excavated and stabilized with an 8-10% Portland cement product.