

Project Name:	Rinse Water Impoundment Remediation/Closure
Project Location:	New Orleans, Louisiana
Project Completion Date:	June 1997
Project Duration:	4 months
Project Value:	\$1,300,000
Client Name:	Lockheed Martin
Client Contact:	Mr. Marty Rowland
Client Phone Number:	(504) 257-3435
Technology Utilized:	Soil Mixing, Vapor Recovery, and Water Treatment

Project Description:

SEMS was contracted by Lockheed Martin to perform remediation and closure of the Rinse Water Impoundment. Remedial activities included removal and decontamination of concrete, soil excavation and treatment with calcium oxide, vapor collection using a subsurface piping system and a 25 horsepower Cincinnati blower, treatment of collected vapors using activated carbon, water collection and treatment using activated carbon. Contaminants of concern included chlorinated organic compounds.

The Rinse Water Impoundment was considered a RCRA hazardous waste unit and the area to be remediated was irregularly shaped and measured approximately 170' by 100'. The contamination consisted of approximately 4,000 pounds of Volatile Organic Compounds (TCE, DCE, VC and PCE) and was in a geologic unit that consisted of clay, peat, and cypress wood debris.

The scope of work, as defined by Lockheed Martin, was to reduce the concentration of VOCs in soils beneath the Impoundment by 90 percent. The Lockheed Martin Request-For-Proposal (RFP) discussed a preferred remedial technology. The preferred remedial technology was chemically enhanced mixed region vapor stripping (MRVS). The applicability of the technology was evaluated by a national laboratory to be feasible. SEMS reviewed the Lockheed Martin preferred remedial technology and developed an estimated cost of approximately two million dollars (\$2,000,000.00).

We were concerned about using mixing blades in material which contained large quantities of stumps. Therefore, we proposed to perform the project using an alternative method consisting of soil removal and calcium oxide mixing using conventional equipment. Vapor collection was proposed using a piping system and a large blower.

Our cost to Lockheed Martin using our proposed method was \$835,000.00. SEMS was awarded the project based upon our innovative approach and much lower cost. The pretreatment sampling event revealed a mass of contaminants of approximately 70,000 pounds (17.5 times the mass defined in the RFP). Based upon the new data, change orders were necessary to handle the increase in VOCs for a mixing (lime and PPE) and vapor phase carbon treatment.

Based upon verification sampling, 99.65 percent of the contaminants were removed. SEMS completed the project for a cost of 1.3 million dollars which was much less than MRVS even with the large increase in the mass of contaminants.