

**Table 2-1
Summary of Information for Remediation Technologies**

Remediation Technology	Emission Points	Typical Air Emission Species of Concern	Amount of Air Emissions Data	Frequency of Use of Controls	Comments
Excavation	Soil surface	VOCs, PM	Very limited	Seldom	Often overlooked, Potential to be major air emission source
Thermal Desorption	Stack, Waste feed	VOCs, SVOCs	Extensive	Always	Usually performed with mobile units
Soil Vapor Extraction	Stack	VOCs	Some	>50% of systems	May be converted to bioventing after initial period
<i>In-situ</i> Bioremediation	Stack, Soil surface	VOCs, Degradation products	Very limited	Seldom (rarely needed)	Being used/proposed with increasing frequency
<i>Ex-situ</i> Bioremediation	Open tanks, Waste feed	VOCs, Degradation products, PM from waste feed	Very limited	Seldom	
Incineration	Stack, Waste feed	Metals, PM, NO _x , CO, Dioxins/furans	Very extensive	Always	Seldom first choice for soils contaminated with fuels
Soil Washing	Process unit, Waste feed	VOCs	None	Not known	Developing technology
Solvent Extraction	Process unit, Waste feed	VOCs, solvent	None	Not known	Developing technology
Soil Flushing	Soil surface, Water recovery system	VOCs	None	Seldom (rarely needed)	Developing technology