



eChapter 17

Environmental Remediation

Remediation is the process of providing a remedy to correct a problem. Environmental remediation is the process of containing or removing toxic contaminants and other pollution from environmental media such as air, water, and soil. Environmental remediation strives to restore the condition of contaminated sites in order to reduce the health threat to humans and other lifeforms.

Significant resources are committed to clean-up and restore some contaminated sites. Other sites are considered so polluted that they are isolated with fences and other containment measures to prevent the contamination from spreading to the rest of the environment.

FEEDBACK: The U.S. Environmental Protection Agency (EPA) created REACH IT, an online searchable database of information on treatment and characterization technologies for a range of contaminant types and media. In 2006, the EPA discontinued the online REACH IT system. [Click here](#) to provide your feedback to the EPA on this decision.

Understanding the Process

In North America, before remediation begins, a series of Environmental Site Assessment (ESA) reports are prepared:

- Phase 1 ESA determines the likelihood that a site is contaminated, without taking samples.
- Phase 2 ESA involves collecting and analyzing samples to identify and quantify contaminants.
- Phase 3 ESA is a report recommending specific methods and budgets necessary to cleanup a site and to provide future monitoring of the site.

After all three phases are completed, and the proposed remediation plan is approved by appropriate government agencies, physical remediation of a polluted site can start.