EPA REACH IT

REmediation And CHaracterization Innovative Technologies

Innovative Technology Information at Your Fingertips

What is EPA REACH IT?

Do you need reliable information about remediation and characterization technologies? Would you like to know about sites at which these technologies are being implemented? Or, are you looking for a cost-effective way to market your innovative treatment or characterization technologies to key decision makers? The improved EPA REACH IT can help, with easier-to-use search functions, and more technologies, vendors, and sites.

REmediation And CHaracterization Innovation Technologies (EPA REACH IT) is sponsored by the U.S. Environmental Protection Agency (EPA)'s Technology Innovation Office. The online system lets environmental professionals use the capabilities of the Internet to search, view, download, and print information about innovative remediation and characterization technologies and their applications. EPA REACH IT is a free service to both technology providers and technology users.

It combines information submitted by vendors of remediation and characterization technologies with data from EPA, the U.S. Department of Defense (DoD), the U.S. Department of Energy (DOE), and state project managers. These sources together provide you with up-to-date information about:

- technologies you can use to characterize or remediate a site,
- sites at which technologies are being used, and
- service providers that offer them.

EPA REACH IT includes a fully searchable database that lets users identify sites with cleanup challenges that closely match their own.

What Technology and Site Information Can I Find in EPA REACH IT?

Information Available in EPA REACH IT as of April 1, 2002

Remediation Technologies

- 656 technology vendors
- 1,289 technologies
- 1,688 sites at which remediation technologies are being applied

Characterization Technologies

- 142 technology vendors
- 181 technologies
- 253 sites at which characterization technologies are being applied

Below are some of the kinds of information available on the EPA REACH IT website.

- **Vendor information:**
  - *Contact information* – Name, address, phone number, and e-mail address
  - *Technologies offered* – List of technologies offered by vendor
- **Technology information (see Figure 1):**
  - *Technology overview* – General information about technology, patent status, and status under federal or state verification programs
  - *Description of technology* – Brief discussion of technical operation of technology, specific circumstances under which it is particularly effective or limited, and technology costs
  - *Scale* – Operational status (full, pilot, or bench scale)
  - *Treatment capabilities* – Media, contaminants, and contaminant groups technology is addressing, or has potential to address

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- *Representative sites* – Site-specific data from vendors, EPA, DoD, DOE, and state project managers

Site information (see Figure 2):

- *Site overview* – General information about site, and equipment scale and operational status
- *Site type/waste source* – Type of operations causing contamination at site and source of waste
- *Media* – Type of media addressed (such as soil or groundwater)
- *Regulation/statute/organization* – Governing regulation or organization (such as Superfund remedial action or RCRA corrective action)
- *Performance data* – Contaminants, concentration ranges, detection limits, and cleanup goals
- *Cost data* – Estimated cost per unit of waste treated, along with ranked list of factors that will have a significant effect on unit price
- *References* – Other literature containing information about technology or site, and contact information for site managers and technology vendors

What's New in EPA REACH IT?

New and updated information:

- 43 vendors and 51technologies with new or updated information, as of April 2002.

Improved website features and functions, including new search functions to help users find the information they need faster:

- *Most Common Searches* page contains results of the technologies and contaminants most commonly searched for.
- New *Custom Search* has two search options: a narrow search, which limits results to only those vendors who can support their claims through site-specific applications; and a broad search, which provides all results.

Updated look and feel of the website make site easier to navigate and more user-friendly

- When new vendors, technologies, or sites are added, the information is flagged in search results as "NEW" for the following 3 months, so that users can identify quickly changes in specific searches.

The New EPA REACH IT:
Figure 1 – Example of Technology Information

Overview
Description
Scale
Treatment Capabilities
Representative Sites

Back to Search

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Treatment Technology: SUPER - Solvent Extraction , ABC Corporation

Technology Overview

Technology Type:
Solvent Extraction

Trade Name and/or Model Number assigned by vendor:
SUPER

Technology Scale: Indicates the operational status of the technology.
☑ Full Scale - Available equipment is sized and commercially available for actual site remediation.

Vendor Services:
☑ Equipment manufacturer
☐ Prime contractor for full-service characterization, monitoring, or measurement.

Patent Information:
☑ Registered trademark
☐ Vendor has exclusive license
☑ Technology patented
☐ Patent Pending

Description of Technology:
ABC Corporation has developed an innovative solvent extraction technology (SUPER) that uses Super Chemical as the solvent. Super Chemical is a biodegradable solvent. Within the unit, the soil is washed continuously with Super Chemical in a counter-current process. The contaminants dissolve in the solution and are removed from the soil by the counter-current flow .

The contaminated solvents are reclaimed in a closed-loop circuit, eliminating the need for large volumes of solvent. The clean, washed soil is moved to a closed-loop dryer system, where any excess solvent is removed from the soil. When the soil exits the system, it is relatively free of organics and dry. The collected contaminant from the solvent washing is concentrated 1,000 to 10,000 times, reducing its volume and its associated disposal costs, and is pumped periodically from the system into labeled 55-gallon drums for conventional off-site disposal.

Emissions of organic vapors to air are controlled and treated by a carbon absorption system.

The New EPA REACH IT:

Figure 2 – Example of Site Information

General
Source
Media
Regulation
Project Type
Cost
Performance
References
Comments

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Vendor Source Site: Confidential Site, Anywhere, USA; SUPER - Solvent Extraction, ABC Corporation

Volume/Quantity Treated 1000 cubic yards
Area treated (in situ projects): 100 square yards
Depth treated (for in situ projects): 10 yards
Equipment Scale: Full Scale

Project Status: Completed: 05/2000

Site Type or Waste Source:
Petroleum Refining and Reuse

Project type:
TSCA

Regulation/Statute/Organization
TSCA

Lead Agency:
State Lead

Media Treated:
Solid (for example slag)

Contaminant or Pollutant Parameter	Untreated Concentration Range (Min to Max)	Units	Treated Concentration Range (Min to Max)	Units	Cleanup Standard or Goal	Units
(Example) Benzene	50-100	mg/kg	25-50	mg/kg	50	mg/kg

I Am a Technology Vendor. How Can I Add Information About My Technology to EPA REACH IT?

You can list your technology information on EPA REACH IT free of charge by filling out a Vendor Information Form (VIF).

The VIF is available:

- By accessing the EPA REACH IT home page at <http://www.epareachit.org>
- By e-mail, with a request to <EPAREACHIT@ttemi.com>
- In hard copy, with a request from the EPA REACH IT help line at (800) 245-4505

You can complete a VIF on line at <http:/ www.epareachit.org>, or submit a handwritten VIF to:

System Operator, EPA REACH IT
c/o Tetra Tech EM Inc.
1881 Campus Commons Drive,
Suite 200
Reston, VA 20191

You also can update existing information by accessing your VIF with your password. If you have forgotten your password, call or send an e-mail to the address listed above.

What Are Hot Topics in the Cleanup Community?

We are particularly interested in expanding EPA REACH IT to include more technologies that address dense nonaqueous phase liquids (DNAPL) and sediment; technologies of particular interest are:

- Permeable reactive barriers
- In situ thermal treatment
- In situ chemical oxidation
- Phytoremediation

What Are the Benefits of Being on EPA REACH IT?

- The EPA REACH IT website is widely used by federal agencies, states, consulting engineering firms, responsible parties, technology developers, and the investment community. For example, in March 2002, the website was visited over 100 times per day, with the average visit lasting over 11 minutes.
- EPA REACH IT is widely advertised in trade journals, at conferences, and through direct mailings to an extensive list of potential users.
- EPA REACH IT is free to both providers and users of innovative technologies. You can become part of EPA REACH IT by investing only the time it takes to complete the Vendor Information Form (VIF) for your technology.
- The new system has updated site features and functions, a more attractive and user-friendly look and feel, and more technologies, vendors, and sites.

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