

TECHCON PROGRAM

The TechCon Program is supporting the U.S. Department of Energy (DOE), Office of Environmental Restoration and Office of Science and Technology, by providing technical assistance to DOE site project teams. It was designed and is operated by EAD to help the teams identify, screen, and deploy innovative, commercially available remediation technologies.

■ PROBLEM/OPPORTUNITY

DOE projects can call on TechCon when regulators and stakeholders demand near-term solutions to remediation problems; when current technology-based approaches fall short of expectations; and when unbiased, independent analyses of innovative alternatives and strategies are needed. By matching innovative commercial technologies with project-specific performance requirements, the TechCon team can transform these technologies into viable candidates for solving DOE's environmental restoration, waste management, and decontamination and decommissioning problems. Through its vast inventory of commercial capabilities, TechCon can also lend assistance when integration of qualified vendors is needed for complex projects.

■ APPROACH

The TechCon team members use a combination of approaches to help their customers solve problems. Some examples are by facilitating one-on-one interactions, forming teams, and conducting invitation-only meetings for DOE staff, site contractors, regulators, and local stakeholders. The team has made creative use of Internet technologies to help collect information and disseminate results. It creates and maintains project-specific home pages that are virtual meeting places where project teams, their stakeholders, and vendors can exchange information, review capabilities, and participate in Web forums. Such use of the Web complements the face-to-face meetings essential for reaching technological decisions.

■ RESULTS

- As a result of a forum held by TechCon at the Idaho National Engineering and Environmental Laboratory in 1998, which showcased the expertise of more than 90 domestic and international vendors, the site project team revised its cleanup strategies and is now conducting treatability tests.
- TechCon replaced an off-site soil disposal technology with soil processing, thereby reducing the volume for disposal by more than 90% and saving more than \$12 million.
- For a nonperforming groundwater system problem, TechCon assembled technology-based operational experts to determine corrective actions and select an approach that led to implementation of a successful new system.
- For a complex and highly visible buried waste project, TechCon assembled a panel of experts to identify and submit alternative approaches, which led to redirection of efforts on a stalled cleanup project.

■ HISTORY/STATUS/FUTURE

Projects at the following DOE sites have used or are candidates for TechCon technical assistance:

- *Hanford:* The Hanford 100-N Area groundwater remediation project team is seeking qualified sources to remediate a contaminated groundwater plume. Contaminants of concern include tritium, strontium, nitrates, manga-

nese, sulfates, chromium VI, and petroleum hydrocarbons. In another project, an interim action is being proposed to reduce the infiltration of surface water around Hanford's single-shell tanks.

- *Los Alamos-Pantex:* The Los Alamos-Pantex project team is seeking qualified sources to remediate soils contaminated with high explosives near Buildings 12-24N and 12-43 and to clean up contaminants in the soil and perched groundwater beneath the site. The high explosives and contaminants include RDX, HMX, TNT, and barium. Characterization methods and capabilities are also being sought for these same contaminants in a fractured, unsaturated zone.
- *Oak Ridge:* One ongoing project involves dense nonaqueous-phase liquid (DNAPL) contamination in groundwater and fractured bedrock; another involves the treatment of mercury-contaminated soil in the Y-12 watershed. TechCon is conducting a forum involving the project team and commercial vendors to determine the best approach for cleaning groundwater at this site; the choice will lead to a competitive bid opportunity in 1999.

- *Fernald:* The Fernald project team plans to treat mixed-waste categories of PCB-contaminated material and organic-contaminated debris, fines, soils, and sludges generated during former production activities and the decontamination and decommissioning of uranium production facilities.

- *INEEL:* TechCon conducted the INEEL Forum on Remediation of Pits and Trenches in 1998. The forum supported DOE, the U.S. Environmental Protection Agency, the State of Idaho, and stakeholders in addressing issues related to the remedial investigation/feasibility study required by law. It helped them evaluate the state of technologies associated with in situ and ex situ treatment options.

The broad array of sites and projects that require help opens the door for integrating TechCon with other Argonne programs, skills, and capabilities.

■ COMMUNICATION OF RESULTS

The TechCon Web site can be accessed at <http://www.ead.anl.gov/~techcon>.



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