

INNOVATIVE GROUNDWATER TREATMENT TECHNOLOGY SUCCESSFULLY TESTED AT NAVWPNSTA SEAL BEACH

An *in situ* chemical oxidation pilot test was recently completed at the Naval Weapons Station (NAVWPNSTA) Seal Beach, which is located about 26 miles south of downtown Los Angeles, California.



Injection well array at Installation Restoration Site 70, Naval Weapons Station, Seal Beach, California.

At Installation Restoration (IR) Program Site 70, chlorinated volatile organic compounds (VOC), primarily trichloroethene (TCE) and associated degradation products, were reported in groundwater within a plume composed of two distinct areas: an area of higher VOC concentrations, suspected of containing dense, nonaqueous-phase liquids (DNAPL); and a surrounding larger area of lower VOC concentrations dissolved in groundwater.

A Groundwater Feasibility Study Report for Site 70 identified *in situ* treatment using

chemical oxidation for the suspected DNAPL area as a promising innovative remediation technology. A chemical oxidation pilot test

was conducted in 2001 using a Geo-Cleanse, technology that was selected as a representative process option. This technology involves inducing an oxidation reaction by injecting acids, hydrogen peroxide, and trace quantities of metallic salts into contaminated media under pressure.

Aquifer quality testing was conducted before, during, and after chemical injection. Sampling results indicated that the average TCE concentration in groundwater in the pilot test cell was reduced from approximately 123 milligrams per liter (mg/L) to 3.8 mg/L. A mass balance analysis of the data, which also considered subsurface soil, indicated greater than 80 percent removal efficiency.

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FORMER FIRE TRAINING AREA CLEANUP CONTINUES ON TREASURE ISLAND

SWDIV, along with contractor Shaw Environmental and Infrastructure (Shaw E & I), formerly IT Corporation, continues to develop and implement corrective action plans for petroleum sites at Naval Station (NAVSTA) Treasure Island (TI). In May 2002, Shaw E & I initiated petroleum cleanup efforts at Site 06, the former NAVSTA TI fire training school. Site 06 was used as the Navy fire training school from 1944 to 1992. Training fires at the site were created by igniting diesel, gasoline, magnesium, and wood and were extinguished using a mixture of water and biodegradable emulsifiers. Wastewater generated during training exercises was drained by gravity flow to an oil-water separator system composed of smothering pits,



Full scale soil vapor extraction system at Site 14/22 Treasure Island, California.

oil-water separators, and waste oil tanks. As of January 2003, cleanup efforts are ongoing at the site.

The initial cleanup approach for Site 06 entailed excavating limited areas of petroleum-impacted shallow soil, removing two underground storage tanks (UST) and associated oil-water separator systems, and evaluating free-phase petroleum product in site groundwater. As of December 2002, about 4,000 tons of waste soils have been shipped off site.

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S U C C E S S S T O R I E S

MULTIDISCIPLINARY TEAM WORKS TO ENHANCE
COMMUNITY OUTREACH AT TREASURE ISLANDA COMMUNITY OUTREACH
CHALLENGE

In the summer of 2002, the Treasure Island (TI) team began planning its community outreach activities associated with release of an upcoming engineering document (the Engineering Evaluation/Cost Analysis, or EE/CA) that addressed complicated issues and presented potentially controversial cleanup alternatives. The EE/CA addressed removal actions for the housing area at TI, known as Site 12. To develop an effective community outreach strategy for the Site 12 Removal Action, the Navy assembled a team of community outreach and risk communication experts to provide consultation and assist in integrating community outreach in to the EE/CA development process.

DIVERSE COMMUNITY OUTREACH
TEAM ASSEMBLED

The Navy's community outreach team (team), included four consulting firms (Tetra Tech EM Inc.; Shaw Environmental and Infrastructure; McDaniel Lambert, Inc.; and Earth-risk, Inc.) with expertise in a variety of relevant disciplines including community involvement, risk communication, public meeting preparation, and environmental investigation and risk assessment: Together, these organizations brought more than 30 years of diverse experience to the team. The team met with the Navy, the regulatory agencies, the City of San Francisco (City), and the TI leasing agent, John Stewart Company, to talk about the technical and logistical issues and what affects they could have on residents.

COLLABORATIVE OUTREACH
STRATEGY DEVELOPED

The team reviewed the meeting formats, agendas, and attendees lists from past community meetings held at TI and developed recommendations for improving the community outreach focus and community participation at future meetings. Based on this review, the following set of community meeting recommendations were developed and agreed to by the Navy, the City, regulatory agencies, and the Community Outreach team (1) assure meetings are informal including allowing attendees to comfortably come late or early based on agenda items; (2) hold meetings at convenient locations and on more than 1-day; (3) keep agenda simple and use relevant visual displays, and (4) provide a format and time for attendees to ask questions in a one-on-one format with the BCT and RAB members, and other technical staff on the team. It was also agreed to continue mailing out fact sheets to provide the basic information, but to also assure access to experts to talk one-on-one and answer questions.

OUTREACH STRATEGY
IMPLEMENTED FOR SITE 12 EE/CA

Based on the outreach strategy developed by the team, the Navy hosted a series of information sessions to involve and educate TI residents during the summer and fall of 2002. The focus was on environmental activities in the TI housing area and possible EE/CA alternatives. The goal of the outreach was to obtain public input and hear questions or thoughts that the team had not considered. The sessions included three display stations providing information about site history,

site data and conditions, and future plans for the housing area. Residents were invited to attend any of three sessions, each held for a 4-hour period on separate days. At the sessions, residents were able to view maps, historic photographs, and proposed EE/CA alternatives; pick up written information; talk with or ask questions of the team; and leave written comments.

The informal sessions were well received by residents who were very pleased with the relaxed atmosphere. Word of mouth spread from neighbor to neighbor, and attendance increased each night. More than 80 residents attended the information sessions, most leaving positive written comments.

While the EE/CA project is ongoing, community outreach efforts have aided the project in many ways. The efforts of the community outreach team helped increased participation of the community and understanding of the Site 12 issues and proposed actions. The TI team opened the lines of communication with the residents and the greater community and was able to answer residents' questions and receive significant written and verbal input. As the project continues, the team believes this increased community interaction will continue to benefit the project and their input will improve the final cleanup at Site 12.

For more information about the community outreach at TI, e-mail Jim Sullivan (SWDIV) at sullivanjb@swdiv.nvfac.navy.mil or Joi Ross (Tetra Tech EM Inc.) at joi.ross@ttemi.

TREASURE ISLAND CLEANUP

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The excavation was expanded after underground pipelines associated with the oil-water separator system were encountered that contained residual hydrocarbon fuels mixed with water. About 440 linear feet of this piping were removed. Several pipeline trench samples collected after the pipelines had been removed contained petroleum concentrations that exceeded site cleanup goals; therefore, step-out excavations were performed. Additional shallow soil contamination also was encountered in the vicinity of a previously removed UST. Over 170

samples, including excavation soil, pipeline trench, pipeline liquid content, and UST rinsate samples, were collected during cleanup activities at the site in 2002. After petroleum-contaminated shallow soil excavation is complete, monitored natural attenuation will be used as the site corrective action for petroleum constituents remaining in groundwater.

Notable progress also has been made at two other NAVSTA TI petroleum program sites. Full-scale soil vapor extraction (SVE) systems began operating at Sites 14/22 and 25 during the sum-

mer of 2002, as first reported in Synergy Summer 2002. As of December 2002, the SVE system at Site 14/22 has extracted about 4,500 pounds (lb) of volatile petroleum compounds while operating for approximately 6,500 hours and the SVE system at Site 25 has operated about 2,700 hours and has extracted over 19,000 lbs of petroleum hydrocarbons.

For more information on NAVSTA TI petroleum-impacted site cleanup efforts, please call Ellen Casados (SWDIV) at (619) 532-0968 or Doug Nelson (Shaw E & I) at (415) 277-6982.

S U C C E S S S T O R I E S

THE SPIRIT OF COMMUNITY RELATIONS:
MOFFETT FIELD TEAM GIVES TOUR TO COMMUNITY

On October 10, 2002, the Moffett Field project team conducted a well-attended and highly successful tour of Installation Restoration (IR) Program sites at Moffett Federal Airfield, Moffett Field, California. The tour was conceived to give Restoration Advisory Board (RAB) members and the general public, including local residents and environmental organizations, the opportunity to experience the sights and sounds of Moffett Field and the Navy's IR Program sites, and consequently, to play a more meaningful role in shaping cleanup decisions.

The tour was attended by about 80 people, including representatives from two local newspapers, a former mayor of Mountain View, a city council member and the city supervisor, environmentalists, regulatory agency representatives, Navy contractors, representatives from community organizations, and local residents. The tour included visits to Site 25, the Eastern Diked Marsh and storm water retention pond; the West-side Aquifers Treatment System; Site 22, the

Golf Course Landfill; Site 1, Operable Unit 1 Landfill; and Site 27, the northern channel. Participants took the tour buses to each site where they viewed displays and sampling equipment and listened to presentations by project team members about the conditions at each site and the remedies associated with the IR Program. Information was presented in an easy-to-understand format and, where necessary, poster boards illustrated complex procedures in simple terms.

The tour provided participants with the opportunity to visit sites they had previously only heard about. The success of the tour is captured in this quote by Bob Moss, RAB Co-Chair, "This tour was a good idea and it was well implemented. The things I have learned today will augment my contributions as a RAB member." Mr. Moss also said that it was clear from the questions participants were posing, that they found the tour useful and informative. EFA West Commander, Captain Bianchi, commended the project team on the success of the tour and said that they did an exemplary job of coordinating the tour, answering questions, defusing contentious issues, and handling the group.



Project team members explain implementation of cleanup decision for Site 22, Moffett Field, California.

This tour is part of the Moffett Field project team's overall goal for its community relations program: to uphold the spirit of community relations through a variety of techniques and encourage community participation in the IR Program and decision-making processes. With this goal in mind, the community relations team has expanded its program with the recent release of the Community Relations Plan and implementation of new activities, including an annual RAB recruitment drive, hyperlinking the Moffett Field environmental Web page with other environmental Web sites, and disseminating a 12-page annual IR Program overview brochure. The Moffett Field project team is committed to identifying new and creative techniques for accomplishing its goals.

For more information, contact Lawrence L. Lansdale (SWDIV) at (619) 532-0961 or by e-mail at lansdalell@efds.w.navy.mil



Captain Bianchi addresses the tour participants at Site 25, Moffett Field, California.

INNOVATIVE GROUNDWATER TREATMENT

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The VOC concentrations in groundwater remained low a month after treatment, which supports evidence for process effectiveness. Increased concentrations in perimeter and deep wells indicated that contaminants may have been mobilized and migrated outward, but the overall effect appeared to be significant mass destruction.

Surface eruptions were noted during the pilot-test injection phase. These eruptions were due to pressure generated by the chemical reaction and resulted in release of vapor to the surface, often accompanied by liquid and solid material. Existing boreholes in the test area acted as a conduit for eruptions, and injection was suspended so that the boreholes could be sealed. Injection resumed at a lower rate than planned, but surface eruptions continued through other pathways, including utility trenches.

Based on the results, *in situ* chemical oxidation was selected as a remedial technology for the IR Site 70 DNAPL area. Results from this pilot test, in addition to ongoing technology innovations and refinements, are being evaluated and considered as the project moves to the remedy selection/implementation phase.

For more information, please contact Si Le (SWDIV) at (619) 532-1235.

P O L I C Y I N I T I A T I V E S

NEW POLICY AND GUIDANCE ON CONTINUOUS LEARNING ACTIVITIES

The Department of the Navy (Navy) Continuous Learning Program provides acquisition workforce members with opportunities to keep their skills current and to stay abreast of acquisition procedures and policies. New policies established for the Continuous Learning Program that take effect Fiscal Year 2003 are summarized below:

Civilian and military personnel in designated acquisition billets have a mandatory requirement to obtain career field certification and to participate in continuous learning activities that augment the minimum education, training, and experience standards established for their career field and specific acquisition assignments. All personnel in designated acquisition positions are required to earn a minimum of 80 continuous learning points every 2 years, with a

goal of earning 40 points each year. There are no grace periods or extensions to the 2-year time period, and points may not be carried over from one cycle to the next. All acquisition workforce members must earn 80 points prior to the end of Fiscal Year 2004 and every 2 fiscal years thereafter, with the following exceptions: acquisition workforce members who have previously established a continuous learning baseline date other than October 1, 2000, will retain their current cycle; and employees designated as acquisition workforce members subsequent to October 1, 2002 will begin their 2-year cycle on the date they entered the Navy workforce. All points earned must be documented in Register Now!

Questions pertaining to the continuous learning program can be addressed to Lana Lykin at (805)

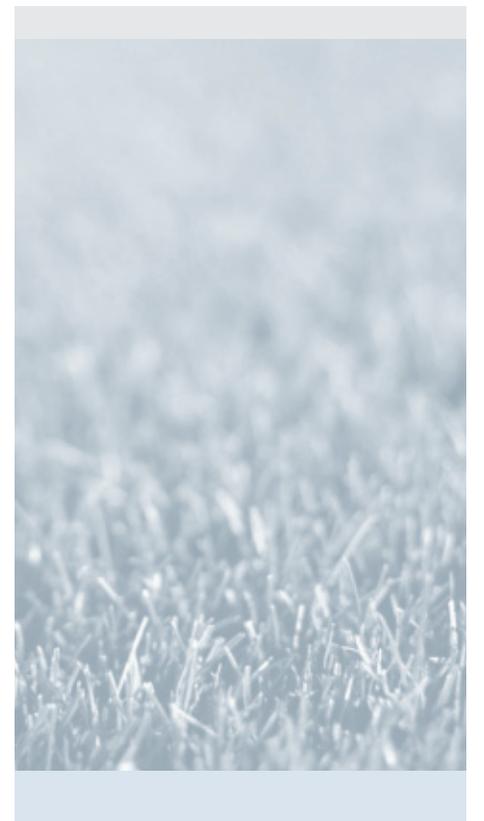
982-6550 or Joy Bird at (202) 685-9021. The NAVFAC community management website is located at <http://navfacilitator.navfac.navy.mil/cm>

FACILITIES ENGINEERING CAREER FIELD IMPLEMENTATION

A letter signed by Dr. J.W. Wright, Chief Engineer, Naval Facilities Engineering Command (NFEC), provided information on the conversion of acquisition workforce to the new Facilities Engineering (FE) career field. Previously, all workforce members under the Defense Acquisition Workforce Improvement Act were designated to the Systems, Planning, Research, Development, and Engineering (SPRDE) career field. The FE career field designator is now programmed into the Modern Defense Civilian Personnel Data System and the transfer of most positions from SPRDE into the FE career field is completed. A few positions will remain in the SPRDE designation, primarily at the Naval Facilities Engineering Service Center.

Additional information regarding NFEC implementation of the FE career field can be obtained from the Community Management website at <http://navfacilitator.navfac.navy.mil/cm/>. Questions should be directed to Judy Boos at (805) 982-4415 or Lana Lyskin at (805) 982-6550.

CONTINUOUS LEARNING ACTIVITIES AND POINT CREDITS	
Creditable Activities	Point Credit
Academic Courses	
Quarter Hour	10 per quarter hour
Semester Hour	10 per semester hour
Continuing Education Unit	10 per unit
Equivalency Exams	Same points as awarded for the course
Training Course/Modules	
Defense Acquisition University	10 per unit
• Awareness Briefing/Training	0.5 per hour of instruction
• Continuous Learning Modules	1 point per hour of instruction
Other Functional Training	1 per hour of instruction
Leadership or Other Training	1 per hour of instruction
Equivalency Exam	Same points as awarded for the course
Professional Activities	
Professional Exam/License/Certificate	10 to 30
Teaching/Lecturing	2 per hour, maximum of 20 per year
Symposium/Conference Presentation	2 per hour, maximum of 20 per year
Workshop Participation	1 per hour, maximum of 8 per day and 20 per year
Symposium/Conference Attendance	0.5 per hour, maximum of 4 per day and 20 per year
Publications	10 to 40
Experience	
On-the-Job Experimental Assignments	Maximum of 20 per year
Rotational Assignments	Maximum of 40 per year
Training with Industry	Maximum of 40 per year
IPT/Special Project Leader	Maximum of 15 per year
IPT/Special Project Member	Maximum of 10 per year
Mentor	Maximum of 5 per year
Assignment Length (Rotational Assignments or Training with Industry)	
12 Months	80
9 Months	60
6 Months	40
3 Months	15
2 Months	10
1 Month	5



A N N O U N C E M E N T S & U P C O M I N G E V E N T S

E D U C A T I O N O P P O R T U N I T I E S

Take advantage of these free training opportunities offered by the Civil Engineer Corps Officers School (CECOS). Information on the CECOS course schedule and enrollment are available on the website at <https://www.cecos.navy.mil/>. To enroll in any class, submit a CECOS Quota Request Form to the CECOS Registrar by fax at (805) 982-2918. You can obtain the Quota Request Form, as well as confirmation of receipt, on line or by fax at (805) 982-2918. You should register at least 3 weeks in advance to allow for adequate planning and to prevent cancellation of the course.

ENVIRONMENTAL COMPLIANCE

Environmental Compliance Assessment

3 to 5 March 2003 Satellite Course
 12 to 14 May 2003 Satellite Course

Environmental Protection

22 to 25 April 2003 Port Hueneme, CA

Hazardous Waste Facility Operators

7 to 11 July 2003 San Diego, CA

Introduction to Hazardous Waste Generation and Handling

4 to 6 March 2003 San Diego, CA

6 to 8 May 2003 San Diego, CA
 12 to 14 May 2003 El Centro, CA
 15 to 17 July 2003 San Diego, CA
 9 to 11 September 2003 San Diego, CA

RCRA Hazardous Waste Review

3 March 2003 San Diego, CA
 5 May 2003 San Diego, CA
 9 May 2003 El Centro, CA
 14 July 2003 San Diego, CA
 8 September 2003 San Diego, CA
 12 September 2003 Fallbrook, CA

ENVIRONMENTAL MANAGEMENT

Advanced Environmental Management

3 to 12 June 2003 Port Hueneme, CA

Basic Environmental Law

16 to 18 September 2003 Port Hueneme, CA

Conducting Environmental Management

System Reviews

8 to 10 April 2003 San Diego, CA

Health & Environmental Risk Communication

Workshop

5 to 7 August 2003 San Diego, CA

ENVIRONMENTAL — POLLUTION PREVENTION

Pollution Prevention Program Operations and Management

2 to 6 June 2003 Satellite Course
 7 to 11 July 2003 San Diego, CA

ENVIRONMENTAL RESTORATION

Ecological Risk Assessment

9 to 11 September 2003 San Diego, CA

Environmental Background Analysis

25 to 26 February 2003 San Diego, CA

HAZWOPER for Uncontrolled Hazardous Waste Site Workers

11 to 15 August 2003 San Diego, CA

HAZWOPER for Uncontrolled Hazardous Waste Site Workers — Refresher

16 June 2003 Port Hueneme, CA

7 August 2003 San Diego, CA

8 August 2003 San Diego, CA

HAZWOPER for Uncontrolled Hazardous Waste Site Workers — Refresher On Line

1 October 2002 to 30 September 2003

Human Health Risk Assessment

8 to 10 April 2003 San Diego, CA

C O M I N G S O O N : S E D I M E N T S I S S U E P A P E R

An issue paper on determining background conditions in sediment for use in ecological risk assessments during in Installation Restoration (IR) sediment studies is currently being developed by SWDIV. When completed, the issue paper will be placed on the Naval Facilities

Engineering Service Center's website which will also include a link to the forthcoming background guide for sediments. The issue paper will discuss how background was determined for eco-risk parameters in previous SWDIV IR sediment reports and will present equations and

examples of methods for determining background eco-risk parameters for the benthic community including: bioavailability, use of bioassays, tissue concentrations in ecological receptors, and regional fish and shellfish populations for future sediment studies.

U P D A T E T O A R A R S G U I D A N C E D O C U M E N T

The Working Draft Revised Standard Text for Applicable or Relevant and Appropriate Requirements (ARAR) guidance document was distributed to contractors on compact disks (CD) in September 2002. Two training sessions were held on September 18 and October 15, 2002, to discuss the major changes and to answer questions from

RPMS and contractors. A training video on how to use the guidance document is also available. To reflect revisions to federal and state regulations and updates to Department of Navy policy, the ARARs guidance document will be updated annually. Any changes or comments should be brought to the attention of Michael Pound (SWDIV).

For a CD copy of the ARARs guidance document, please contact either Lucretia Holloway (SWDIV) at (619) 532-2810 or Elizabeth Barr (Bechtel Environmental, Inc.) at (619) 744-3037. For a copy of the training video, please contact Mr. Pound (SWDIV) at (619) 532-2546.

ANNOUNCEMENTS & UPCOMING EVENTS

PROPOSED WITHDRAWAL OF TMDL FINAL RULE

The U.S. Environmental Protection Agency (EPA) is proposing to withdraw the final rule relating to total maximum daily load (TMDL) entitled, Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulation (July 13, 2000, 65 FR 43585). The July 2000 Final Rule amended existing regulations to require states to identify waters that are not meeting applicable water quality standards and to establish pollutant budgets (TMDLs) to restore the quality of those waters. The rule also amended EPA's National Pollutant Discharge Elimination System (NPDES) regulations to include provisions addressing implementation of TMDLs through NPDES permits. Regulations that EPA promulgated in 1985 and amended in 1992 remain the regulations in effect for implementing the TMDL Program. EPA has indicated that significant changes would need to be made to the July 2000 rule before it could serve as the blueprint for an efficient and effective TMDL Program.

For further information, contact Francoise M. Brasier, EPA Office of Wetlands, Oceans and Watersheds at (202) 566-2385.

TRIBUTYLTIN – DRAFT AMBIENT AQUATIC LIFE WATER QUALITY CRITERIA

EPA has released an on-line draft water quality criteria document for comment, regarding tributyltin (TBT) entitled, Ambient Aquatic Life Water Quality Criteria for TBT—Draft (EPA-822-B-02-001). These criteria represent EPA's current recommendations to States to use in establishing TBT their water quality standards. EPA is requesting scientific and technical input and will accept significant information submitted by March 27, 2003. TBT is one of several organotin compounds with various industrial uses. Environmental exposure occurs mainly from its application as a biocide in antifouling paints applied to ship hulls. TBT persists in the environment for long periods, because it is released from the hull into the water column over time and is extremely stable and resistant to natural degradation in water. The criteria document may be obtained

from EPA's Water Resource Center by telephone at (202) 566-1729.

For further information, contact Frank Gostomski, EPA Health and Ecological Criteria Division at (202) 566-1105 or by e-mail at gostomski.frank@epa.gov

RODS AVAILABLE ONLINE

EPA has developed a new on-line database called, RODS, which contains full-text Superfund Record of Decisions (ROD), abstracts, amendments, and explanations of significant differences. A ROD provides the justification for the remedial action or treatment chosen at a Superfund site. It also contains site history; site description; site characteristics; community participation; enforcement activities; past and present activities; contaminated media; the contaminants present; scope and role of response action; and the remedy selected for cleanup.

RODS on-line can be found at: <http://cfpub.epa.gov/superrods>.

UPCOMING EVENTS

2003 NAVY AND MARINE CORPS CLEANUP CONFERENCE

10 -12 February 2003, Port Hueneme, California

The 2003 Navy and Marine Corps Cleanup Conference promotes information exchange among members of the Navy and Marine Corps community involved in the environmental restoration program. The conference will address topics such as the Washington D.C. perspective on policy and emerging issues; new technologies; sediments cleanups; risk assessments; range and ordnance cleanups; natural resource injury impact on cleanups; legal issues such as property transfers; use of Geographic Information Systems and information technology to document cleanups; and 5-year reviews. In addition, remedial project manager training sessions will be available at the conference.

Look for conference location and registration information at <http://newweb.ead.anl.gov/ecorisk/calendar/index.cfm>

SEMINAR ON INTRUSION OF VAPORS INTO INDOOR AIR

25 to 26 February 2003, Atlanta, Georgia

The U.S. Environmental Protection Agency's (EPA) Office of Research and Development is sponsoring a seminar on the potential for intrusion of toxic and hazardous chemicals vapors from contaminated soils or groundwater into indoor air. The seminar is targeted for regulators and decision-makers from federal, regional, state, and local governments that deal with indoor air vapor intrusion sites and issues.

Information on the seminar can be found at <http://www.epa.gov/ttbnrml/indoorair.htm>.

SUSTAINABLE ENTERPRISE SUMMIT

13 to 14 March 2003, Washington, DC

The World Resources Institute sixth annual Sustainable Enterprise Summit will showcase leading corporations and strategic partnerships that transform vague concepts of sustainability into concrete actions. Case presentations by leading corporations will feature innovative approaches that companies are using to identify and evaluate opportunities for entering new, sustainable markets and train business leaders to manage for sustainability.

For registration information, visit http://www.wri.org/wrisummit/2003_summit.html or call (202) 729-7635.

13th ANNUAL WEST COAST CONFERENCE ON CONTAMINATED SOILS, SEDIMENTS, & WATER

17 to 20 March 2003, San Diego, California

The 13th Annual West Coast Conference on Contaminated Soils, Sediments, and Water offers attendees an opportunity to exchange findings, ideas, and recommendations in a professional setting. The annual gathering provides a forum to facilitate the exchange of information on technological advances, new scientific achievements, and the effectiveness of existing environmental regulatory programs. Platform and poster sessions feature research, case studies, and the presentation of new programs. Exhibitions augment the conference program and bring applied technology to attendees. Focused evening workshops provide attendees with practical information for immediate application.

For conference information, visit <http://www.aehs.com> or call (413) 549-5170.

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29TH ANNUAL ENVIRONMENTAL AND ENERGY SYMPOSIUM & EXHIBITION

7 to 10 April 2003, Richmond, Virginia

The symposium and exhibition is sponsored by National Defense Industrial Association (NDIA) in cooperation with the Deputy Under Secretary of Defense for Installations and Environment, Defense Logistics Agency, the EPA, Federal Facilities Enforcement Office, and Department of Energy (DOE). "DoD Transformation: The Role of Environmental and Energy Programs in Sustaining Readiness" is the theme selected by the NDIA Environment and Energy Division for the 29th Environmental and Energy Symposium & Exhibition. The focus of the symposium is to present information on federal agency environmental preservation and energy conservation approaches through integration of environment and energy accountability in the management of impacting activities and the application of technology to ensure success in these two areas.

Conference and registration information can be found at <http://www.ndia.org>.

WORKSHOP ON ENVIRONMENTAL STABILITY OF CHEMICALS IN SEDIMENTS

8 to 10 April 2003, San Diego, California

The 3-day workshop will focus on the: (1) biological, chemical, and physical factors that effect the stability, mobility, or bioavailability of inorganic and organic contaminants in aquatic sediments; (2) the fate, transport, and potential ecological risks associated with sediment-bound contaminants; and (3) general guidelines for assessment and management of contaminated sediments that may pose unacceptable risks to human health or the environment.

For more information on workshop registration, visit <http://www.smwg.org>.

7th INTERNATIONAL SYMPOSIUM ON IN SITU AND ONSITE BIOREMEDIATION

2 to 5 June 2003, Orlando, Florida

The object of the symposium is to facilitate technology transfer and integrate the latest developments and fundamental research with innovative engineering applications for bioremediation and supporting technologies, as applied to any contaminant. Topics expected to be covered include: (1) advances in monitored natural attenuation, bioaugmentation, biosparging and bioventing, and phytoremediation, (2) technology selection, process optimization, and site closure strategies, and (3) long-term monitoring.

For registration information, please visit <http://www.battelle.org> or call (800) 783-6338.

8th ANNUAL JOINT SERVICES POLLUTION PREVENTION & HAZARDOUS WASTE MANAGEMENT CONFERENCE & EXHIBITION

11 to 14 August 2003, San Antonio, Texas

The 8th Annual Joint Services Pollution Prevention & Hazardous Waste Management Conference & Exhibition is dedicated to preservation and improvement of the environment through investment in pollution prevention (P2) and proactive management of hazardous waste. The conference provides an open forum for exchanging ideas, success stories, case histories, and technologies related to P2 and hazardous waste management.

For more information, visit <http://www.ndia.org> or call (703) 247-2582.

ENERGY 2003

17 to 20 August 2003, Lake Buena Vista, Florida

The Energy 2003 annual workshop and trade show is sponsored by the DOE, the U.S. Department of Defense, and U.S. General Services Administration. Attendees include federal, state, local, and private sector energy managers, procurement officials, engineers and architects, energy service companies, transportation officials, utilities, and others involved in energy management. The workshop offers opportunities to learn about the latest cost-effective, energy-saving, renewable energy and water efficiency products, strategies, and equipment.

Find registration information at <http://www.energy2003.ee.doe.gov/general.htm>.

EDITORIAL INFORMATION

The CFS Group, a department of Tetra Tech EM Inc., edits Synergy in cooperation with SWDIV. The editors invite articles on environmental solutions for sustainability, including technology innovations, lessons learned, success stories, community relations, and conferences and training events.

Please submit inquiries by e-mail or fax to:

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