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## OFFICE OF RESEARCH AND DEVELOPMENT SUPERFUND AND TECHNOLOGY LIAISON (STL) REGION 9 NEWSLETTER

Fall 2011, Edition 57

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It's time for the Fall edition of the STL newsletter. Last year at this time, I was harping about the local SF Giants....well, things are a little quieter around here this year! I guess we'll just have to talk about work. *Or maybe congratulate the CARDS or RANGERS??*

Which isn't so bad! There are a lot of new resources out there in the world of environmental remediation to share with you. This quarter, there are articles about the new TCE toxicity assessment (many years in the making and finally out), vapor intrusion work done by the Air Force and a revealing exposé about those mysterious ORD STLs – the Superfund and Technology Liaisons – those folks that provide tech support to all the regions. Hopefully, they are not a mystery, but if so, that'll soon change, since the word is now out! See below for more on these topics.

We've also got many new documents, websites and upcoming conference and webinar offerings in this issue. And finally, it is still important to remind you of the tech support available to EPA staff through ORD. Please feel free to call me if you need support for your site work. Oh! And the Tech Support Project "Expertise Directory" is now published online. We in EPA are surrounded by many talented folks who are members of the three Forums (Ground Water, Engineering and Federal Facilities) and they can provide tech assistance to you as well. Check out who knows what in this new online Directory for many of your support needs: <http://epa.gov/tio/tsp/download/expertise.pdf> .

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ORD Superfund and Technology Liaison  
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## Fall 2011 Edition of the Region 9 STL Newsletter:

### National News

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### Recent Documents, Databases, etc.

# NATIONAL NEWS

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## New Tools and Technologies

### **Recent Homeland Security Research Products**

(From Kathy Nickel, US EPA)

#### **Homeland Security Research**

A number of new products have been released as a result of ORD research in the arena of homeland security. Below they are divided up into topic areas. Thanks to Kathy Nickel of the National Homeland Security Research Center in Cincinnati for this information. If you have any questions, she can be reached at [nickel.kathy@epa.gov](mailto:nickel.kathy@epa.gov) .

#### **• PRODUCTS THAT SUPPORT DETECTION OF CONTAMINATION IN BUILDING OR OUTDOORS**

[Comparative Analysis of the Traditional Plaque Assay and Real-Time QPCR- And Nanosight-Based Assays for Enumerating Bacteriophage Particles](#)

[Development of an aerosol surface inoculation method for bacillus spores](#)

#### **• PRODUCTS THAT SUPPORT RISK ASSESSMENT**

[Acute Low Dose Bacillus anthracis Ames Inhalation Exposures in the Rabbit](#)

• **PRODUCTS THAT SUPPORT DECONTAMINATION OF BUILDINGS OR OUTDOOR AREAS**

[2010 U.S. Environmental Protection Agency \(EPA\) Decontamination Research and Development Conference](#)

[Evaluation of Nine Chemical-Based Technologies for Removal of Radiological Contamination from Concrete Surfaces](#)

[Evaluation of Five Technologies for the Mechanical Removal of Radiological Contamination from Concrete Surfaces](#)

[Decontamination of Sulfur Mustard and Thickened Sulfur Mustard Using Chlorine Dioxide Fumigation](#)

[Effectiveness of Physical and Chemical Cleaning and Disinfection Methods for Removing, Reducing or Inactivating Agricultural Biological Threat Agents](#)

[Efficacy of Liquid Spray Decontaminants for Inactivation of Bacillus Anthracis Spores on Building and Outdoor Materials](#)

[Evaluation of Household or Industrial Cleaning Products for Remediation of Chemical Agents](#)

• **PRODUCTS THAT SUPPORT WASTE TREATMENT OR DISPOSAL**

[Report on Waste Disposal Workshops for a Radiological Dispersal Device \(RDD\) Attack in an Urban Area](#)

[Thermal Destruction of TETS: Experiments and Modeling](#)

• **PRODUCTS THAT SUPPORT THE DETECTION OF CONTAMINANTS IN WATER**

[High Throughput Determination of Tetramine in Drinking Water by solid Phase Extraction and Isotope Dilution Gas Chromatography/Mass Spectrometry \(GC/MS\)](#)

[Planning for an Emergency Water Supply](#)

• **PRODUCTS THAT SUPPORT THE DECONTAMINATION OF WATER INFRASTRUCTURE**

[Efficacy of Chlorine Dioxide as a Disinfectant for Bacillus spores in Drinking Water Biofilms](#)

[Chlorine Disinfection of Francisella Tularensis](#)

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**TCE Toxicity Reassessment - Impacts on Past and Future Cleanups?**

Sources: EPA Press Release dated Sept 28, 2011 and Natural Resources Defense Council ([http://switchboard.nrdc.org/blogs/jsass/epa\\_finalizes\\_long-delayed\\_tce.html](http://switchboard.nrdc.org/blogs/jsass/epa_finalizes_long-delayed_tce.html))

In late September, EPA announced the results of the re-assessment of TCE toxicity (trichloroethylene), a hazardous cancer-causing chemical that pollutes water and air at over 700 Superfund sites. TCE is one of the most common man-made chemicals found in the environment. It is volatile and is a widely used chlorinated solvent whose movement from contaminated ground water and soil, into the indoor air of overlying buildings, is of serious concern.

It's been 24 years since the last EPA assessment of TCE and numerous stakeholders (community, industry, regulators and federal facilities) have

been following this issue for years. Following an exhaustive peer review process, EPA has found that the evidence on cancer risk and other health effects from exposure to TCE has strengthened in recent years. This final TCE health risk assessment characterized the chemical



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**Trichloroethylene (CASRN 79-01-6)**

STL Newsletter Archives:

<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

as carcinogenic to humans and as a human noncancer health hazard affecting the central nervous and immune systems, the kidneys and liver, male reproductive organs and the developing fetus.

Currently, a Maximum Contaminant Level (MCL) of 5 parts per billion (ppb) TCE is the drinking water standard and the Regional Screening Level (RSL) for TCE in air is 1.2 micrograms TCE per cubic meter air (1.2 ug/m<sup>3</sup>). The RSL is the level of TCE in residential air that corresponds to an additional one-in-a-million lifetime cancer risk using California toxicity values and Superfund exposure assumptions. This new information from the assessment could lead to changes in both the drinking water standard (MCL) and the RSLs for TCE, which could mean more stringent cleanups at sites where TCE is present. It is unclear how this new toxicity assessment will impact sites where cleanup decisions have already been made, although as always, site specific conditions and local State regulations will likely drive the decisions.

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### **AFCEE-Funded Project Provides Improved Understanding of Vapor Intrusion (VI)**

(FROM AFCEE NEWSLETTER OF July 22, 2011)

## **AF Center for Engineering and the Environment**

At buildings with potential for vapor intrusion (VI) of volatile organic chemicals (VOCs) from the subsurface, the ability to accurately distinguish between VI and indoor sources of VOCs is needed to support accurate and efficient VI investigations. Researchers, supported by a recently completed AFCEE Broad Agency Announcement (BAA) (Contract 09-C-8016), have developed a new method for application of compound-specific stable isotope analysis (CSIA) for this purpose. The application of CSIA for VI required development and validation of an adsorbent sampler method (similar to US EPA Method TO-17) in order to obtain sufficient sample mass from the air for accurate isotope analysis. After validation, the new sampling method was applied to five residences near Hill Air Force Base (AFB), UT, with potential (PCE) or trichloroethene (TCE) VI concerns. At two of the residences, the CSIA results indicated an indoor source of PCE, while at two other residence the CSIA results confirmed TCE VI. The results for the fifth residence were not definitive. The project results confirmed that subsurface and indoor sources of TCE and PCE often exhibit distinct carbon and chlorine isotope ratios and that CSIA can be used to identify the source(s) of these chemicals when they are present in indoor air. The results from this project are presented in a paper published in Environmental Science and Technology (ES&T) and currently available from the ES&T web site. The citation is McHugh, T., Kuder, T., Fiorenza, S., Gorder, K., Dettenmaier, E., and Philp, P., Application of CSIA to Distinguish Between Vapor Intrusion and Indoor Sources of VOCs, accepted June 8, 2011, Manuscript es200988d. Dr. Adria Bodour was the AFCEE project manager. Dr Samuel

Brock was the Contract Officer's Representative (COR), and Dr Paul Jurena was the alternate COR. Dr Erik Dettenmaier and Kyle Gorder of Hill AFB also provided technical support for the project. More information about the AFCEE BAA can be found online at: [www.afcee.af.mil/resources/technologytransfer/baa](http://www.afcee.af.mil/resources/technologytransfer/baa) .

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## **From Source to Tap - Three Drinking Water Research Challenges**

(From NRMRL News , October 2011)

Most Americans take safe drinking water for granted, without giving much thought to the research effort required to keep it that way. For nearly 100 years, biologists, chemists, engineers and other environmental scientists have been meeting the challenges posed by natural and man-made threats to safe and plentiful drinking water. EPA water researchers can point to many scientific accomplishments during that period, but many challenges remain. They range from stressed groundwater reserves to aging drinking water infrastructure. While the challenges are diverse and complex, so are the research responses.



The challenges include:

- 1) protecting the sources,
- 2) harnessing the flow, and
- 3) treating an delivering safe water.

For the complete story, check out this site:

<http://www.epa.gov/nrmrl/news/102011/news102011.html>

To learn more about this research, contact [Steve Doub](#) 513-569-7503

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## **WHAT'S AN STL???**

I recently had the opportunity to be interviewed by Office of Research and Development communications staff, and they asked me "So what the heck do you Superfund and Technology Liaisons (or STLs) do out there in the regions?? What is that we are paying for anyway??" Well, it wasn't quite like that, but being place-based employees, we are sometimes a mystery to the folks in DC.



STLs and OSP Management at the ORD Lab in RTP, NC (April, 2011)

In case we're a mystery to you too, I've posted the transcript from that interview here to hopefully answer some of your questions!

### 1. Explaining the STL program:

- a. **What do STLs do?** *As our name implies, the STLs (liaisons) act as an interface. We sit in the regional offices and work between the regional staff, mostly Superfund and RCRA, and ORD, both in the labs and in HQ. Interfacing involves a number of tasks, but most importantly it is our job to provide technical support to the Remedial Project Managers who oversee Superfund site cleanups in the regions. We also act as a feedback loop to the research planners in ORD and help guide them in a research direction that will be most beneficial to the work done on the ground in the regions. That is, we benefit most from the applied research that ORD provides.*
- b. **Why did the STL program initially start?** *The program started in 1990, where it was recognized that a liaison in each region would be mutually beneficial to both ORD and the regions. For various reasons, not all regions always had an STL. But after lobbying both the ORD AA at the time (Paul Gilman) and those regions without an STL, we've had a full complement of STLs for most of the time since 2004.*
- c. **What is your role as STL to EPA Region 9?** *As I mentioned, I see my main role as STL to Region 9 to be one of a broker of ORD technical support. In reality, I am also heavily involved in training and conference planning, as well as tech*

STL Newsletter Archives:

<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

*transfer of all types of hazardous waste cleanup information. One way I transfer this information is through a quarterly newsletter that I've consistently put out since 1998. (Editor's note: That's what you're reading now!)*

2. **What types of technical support do you provide to regional Superfund staff?** *Much of the technical support that I provide follows classic lines of engineering, hydrogeology, site characterization and monitoring. These topics are exactly as the tech support centers are organized in our ORD labs. But over the years, I've also gotten involved in early support for emerging topics such as nanotechnology – both applications and implications - and green remediation, or as we now call it, “greener cleanups”. The goal here is to just make the project managers realize that when cleaning up a site, one should conduct the cleanup with best management practices in mind so that you use the least amount of resources, such as energy, water, and materials. Even though cleanup is itself inherently “green”, we can make it even greener if we try to minimize the carbon footprint of the project or system.*
  
3. **What are the Technical Support Centers in ORD's Laboratories and how do you use them?** *The TSCs as we call them are formally designated centers within some ORD labs that handle requests from the STLs and regional folks within the Superfund and RCRA programs. They provide the expertise and consistency on problems that go beyond those can be handled by the contractors or local Superfund tech support staff. In general, these TSCs are divided up by expertise and staffed by the ORD researchers.*
  - a. **How do interactions with the Technical Support Centers work?** *There is a TSC Director who we interface with when we need help. When an STL or regional staff person picks up the phone, they typically contact one of the center directors who then connect the requestor with an appropriate researcher for support. Funding is pre-positioned each year to make this process very simple to access without much paperwork. It is a wonderful system! We think other programs would benefit from this support model, but that's a topic for another story!*
  
  - b. **What types of expertise do they provide?** *The TSCs are divided up into expertise areas covering groundwater issues, engineering issues, site characterization and monitoring issues and risk issues. We also have a very useful Environmental Photographic Interpretation Center (known as EPIC) that can provide historical photos and interpretation of them if needed. These photos can be a very important part of a site's assessment before or during a cleanup. By looking at a series of photos covering many years, a story unfolds about land*

*use at a site that records or personnel interviews may miss. It is a very useful tool.*

4. **What have been the most significant impacts of the STL program?** *I think one of the most significant impacts of the STL program is that 10 people, one in each region, have been able to link two much larger parts of the Agency together that are typically dealing with problems on different timescales. The ORD labs are looking 3, 4, 5 years into the future with their research. The regions are constantly trying to correct what's been done to the environment in the past. And they often have to respond to emergencies, an interested municipality, the press, or an angry member of the public. So their time scales are completely different. But they can help each other in many ways. The nationally based experience from ORD has given the regional staff the ability to be more consistent in their work through the tech support they provide and the Labs have been able to see what the pressing on-the-ground problems are that the regions face today. This can help guide their future research to areas that are truly going to be beneficial to the environment. It is a necessary and valuable relationship that is mutually beneficial.*
  
5. **Can you give an example of how you've helped regional managers make technically defensible Superfund cleanup decisions (something that typifies the work of STLs).** *There are many small examples that each STL provides on a daily basis that may or may not have an effect down the road, but we still feel are very important, as they become part of the decision process for the RPMs. But let me give you a very illustrative example of one that is easy to see the benefit. It is an example of how the EPIC photo support helped out at a site. Region 9 was asked to support the Dept of Energy with the assessment of a formerly used defense site in Southern California known as Santa Susana Field Laboratory (SSFL), a 2,850 acre site. This site, in use since 1948, had a busy history, including two partial reactor meltdowns, and many other environmental impacts to the area. And now, Los Angeles County's sprawl has grown closer to the site boundaries. The potential risk to HH&E has increased. Using aerial photos showing changes over the years since its operation began was a very useful tool in assessing impact and determining where to spend limited assessment funds. Findings from the analysis revealed details related to waste disposal areas, impoundments, processing areas, fill areas, and open storage areas on many locations on SSFL. Thirty-eight dates of historical photographs covering the period from 1939 through 2005 were analyzed and a report was delivered to Region 9 to help guide future work for DOE and EPA. That's one example from just one site. The fact that each of my 9 colleagues can provide equally important examples brings home the value of the STL program.*

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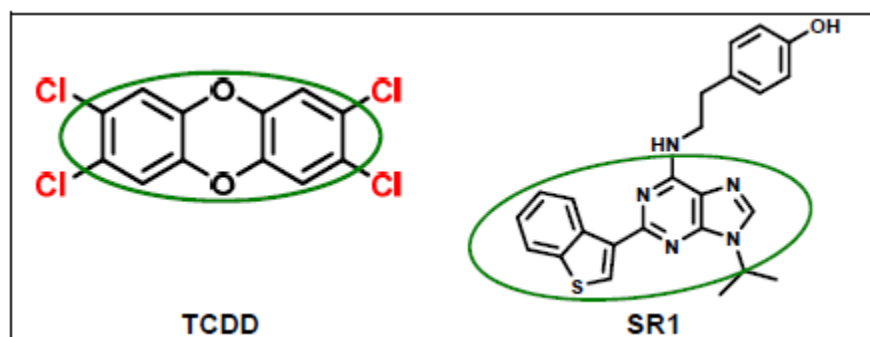
## LOCAL NEWS

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### NIEHS Research: Dioxin cell-based assay to evaluate chemical structures to increase blood-cell transplant success

(From UC Davis SRP Research Update by James Sanborn)

The Superfund Research Program (SRP) at UC Davis has provided basic research information to address needs to help address challenges posed by environmental contamination such as health risks, toxicity, exposure predictions, fate and transport, and the need for cost-effective treatments for hazardous waste sites. This article covers one of the recent projects implemented at UC Davis under the SRP.



#### Background

In an earlier Research Update (May 2009), the novel cell-based method to detect chlorinated dioxins and furans (the CALUX bioassay) was highlighted. This method utilized liver cell lines that had been modified to respond to environmentally relevant concentrations of toxic chlorinated dioxins, furans and biphenyls extracted from a variety of matrices. The method was accepted by foreign regulatory agencies and eventually by the US EPA (Method 4435) as an alternative method to those that are more costly and currently in use. This detection system was used as a part of collaborative effort to discover other possible endogenous roles for the Ah Receptor (AhR). Researchers report that this receptor may have a major role in the regulation of the growth of stem cells that become blood and immune cells (Science 329, 1345-1348, 2010).

## Impact

Much has been written over the past 40 years about the toxicity and environmental persistence of chlorinated dioxins that were contaminants in herbicides as well as combustion byproducts of natural and human manufactured products. While the role of the AhR in mediating the toxicity of these chemicals is clear, its role in normal endogenous biological and physiological processes is unclear. Insights into an endogenous role for the AhR would not only expand understanding of the developmental and biological processes to which the AhR appears to be involved, but will identify potential targets for the toxicity associated with exposure to chlorinated dioxins and related chemicals. One role appears to be in the regulation of the growth and expansion of a class of stem cells that become blood and immune cells. Superfund investigator Dr. Michael Denison participated in the evaluation of a novel chemical structure (SR1), identified through screening of a chemical library that regulates the growth of hemopoietic stem cells through in an AhR-dependent manner. Using his cell based AhR (CALUX) bioassays, he demonstrated that SR1 was a human-specific AhR inhibitor. The work in this study is significant as it demonstrated that inhibition of the AhR and AhR signaling pathway enhanced the growth and expansion of the hemopoietic stem cells, something that has been a major limitation in being able to effectively use these cells to their full clinical and research potential. The application of AhR cell-based high-throughput screening approaches will facilitate the evaluation of additional structures that may be even more effective. Sometimes research findings lead to advances and applications outside their intended use. This is certainly the case for this example and may lead to greater success for humans who need blood or immune cell transplants.

For more information about the UC Davis SRP, please contact: James R. Sanborn, Research Translation Coordinator, [JRSanborn@ucdavis.edu](mailto:JRSanborn@ucdavis.edu) or (530) 752-8465.

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## DATEBOOK - UPCOMING EVENTS

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This section of the newsletter is an attempt to present both EPA and non-EPA sponsored environmental technology related courses and conferences. But being a quarterly publication, it is impossible for this newsletter to always be up-to-date. For the most pertinent information on upcoming EPA courses, see <http://www.trainex.org>. These events are listed chronologically.

(NOTE: Some multi-line URLs may need to be cut and pasted. Sorry for the difficulty.)

Many of the entries in these newsletters are from TIO's "TechDirect" emails (thank you Jeff

STL Newsletter Archives:  
<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

Heimerman!). TechDirect is also tied to the clu-in webpage, which lists many training opportunities, including the following:

Announcement of Courses: <http://clu-in.org/courses>

Archive of Courses: <http://clu-in.org/live/archive.cfm>

Internet Training <http://www.cluin.org/training>

## IIRC Internet Based Training

These are typically 1-2 hour online courses where the participant follows a webpage presentation, while listening on the phone. Check - <http://www.iircweb.org> or <http://www.clu-in.org/studio/seminar.cfm> to verify times and registration, unless other websites are mentioned below. (Note that times are Eastern time.)

<b>WEBINAR TITLES</b>	<b>DATE / TIME</b>
Use and Measurement of Mass Flux and Mass Discharge	November 3, 2011 (Thursday) 11:00 a.m. - 1:15 p.m.
NARPM Presents...ORD Scientific and Engineering Technical Support for RPMs (and Others)	11/09/2011
Project Risk Management for Site Remediation	November 10, 2011 (Thursday) 11:00 a.m. - 1:15 p.m.
Performance Specifications and Long-Term Stewardship for Solidification/Stabilization Projects	November 15, 2011 (Tuesday) 2:00 p.m. - 4:15 p.m.
NARPM Presents...In Situ Sediment Remediation Using Benthic <u>Waterjet</u> Amendment Placement	11/16/2011
Use of Risk Assessment in Management of Contaminated Sites	11/17/2011 , 2:00 p.m. - 4:15 p.m. EASTERN TIME
Green & Sustainable Remediation	November 17, 2011 (Thursday) 11:00 a.m. - 1:15 p.m.
Mine Waste Treatment Technology Selection	November 29, 2011 (Tuesday) 2:00 p.m. - 4:15 p.m.
<u>Biofuels</u> : Release Prevention, Environmental Behavior, and Remediation	December 6, 2011 (Tuesday) 2:00 p.m. - 4:15 p.m.
LNAPL Part 1: An Improved Understanding of LNAPL Behavior in the Subsurface	December 8, 2011 (Thursday) 11:00 a.m. - 1:15 p.m.
LNAPL Part 2: LNAPL Characterization and Recoverability	December 13, 2011 (Tuesday) 2:00 p.m. - 4:15 p.m.
LNAPL Part 3: Evaluating LNAPL Remedial Technologies for Achieving Project Goals	December 15, 2011 (Thursday) 11:00 a.m. - 1:15 p.m.

NOTE: Course dates and times are subject to change. All times are Eastern.

STL Newsletter Archives:  
<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

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**Hazardous Waste Management - An Overview of CERCLA**

October 28, 2011

<https://www.netionline.com/course/DelivDetails.asp?DeliveryNumber=0000003332&CourseNumber=OTH155C&NewScreen=N>

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**Emergency Preparedness and Prevention and Hazmat Spills Conference**

October 29 - November 2, 2011

Pittsburgh, PA

<http://www.trainex.org/classdetails.cfm?courseid=318&classid=5483>  
[www.2011conference.net](http://www.2011conference.net)

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**Managing Environmental Data with Microsoft Access 2007**

November 1-3, 2011

Denver, CO

<http://www.eosalliance.org/schedule/event/introduction-to-managing-environmental-data-with-microsoft-access-2007----->

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**Hazard Ranking System**

November 1-4, 2011

Kansas City, KS

<http://www.trainex.org/classdetails.cfm?courseid=38&classid=5186>

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**SSTI (State Science and Technology Institute) Annual Conference**

November 8-9, 2011

Columbus, OH

<http://www.ssticonference.org/>

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**SETAC Meeting**

November 13-17, 2011

Boston, MA

<http://boston.setac.org/>

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**Best Management Practices for Site Assessment, Remediation, and Greener Cleanups**

November 15, 2011

New York, NY

<http://www.trainex.org/classdetails.cfm?courseid=1228&classid=5387>

STL Newsletter Archives:

<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

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**Triad Training for Practitioners**

November 16-18, 2011

New York, NY

<http://www.trainex.org/classdetails.cfm?courseid=796&classid=5388>

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**GROUNDWATER RESOURCES ASSOCIATION of California**

**Advanced Tools for In-Situ Remediation Workshop**

November 17, 2011

Oakland, CA

[http://grac.org/event/er\\_regform.asp?eid=186](http://grac.org/event/er_regform.asp?eid=186)

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**Partners in Environmental Technology Technical Symposium & Workshop**

Washington, D.C.

November 29 - December 1, 2011

<http://symposium2011.serdp-estcp.org/>

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**Advanced Laboratory Design for Health, Safety, and the Environment**

December 5-7, 2011

Boston, MA

<https://ccpe.sph.harvard.edu/AGLD>

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**Hazardous Waste Operations and Emergency Response**

December 12-16, 2011

Waldorf, MD

<http://www.trainex.org/classdetails.cfm?courseid=23&classid=5544>

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**Introduction to Phytotechnologies / Water Balance Covers (together or separate)**

December 14-15, 2012

San Francisco, CA

<http://www.phytosociety.org/events>

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**Compounds of Emerging Concern in Groundwater Symposium**

February 7 - 8, 2012

Concord, California

<http://www.grac.org/emergingcompounds.asp>

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STL Newsletter Archives:

<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

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**The 27th International Conference on Solid Waste Technology and Management**

March 11 - 14, 2012

Philadelphia , PA

<http://www.is4ie.org/events?eventId=332162&EventViewMode=EventDetails>

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**22nd Annual International Conference on Soil, Water, Energy, and Air**

March 19-22, 2012

San Diego, CA

<http://www.aehsfoundation.org/west-coast-conference.aspx>

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**DoD Environmental Monitoring & Data Quality (EMDQ) Workshop**

March 26-29, 2011

La Jolla, CA

<http://www.regonline.com/builder/site/Default.aspx?EventID=1014424>

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**Seventh Annual Conference on Design and Construction Issues at Hazardous Waste Sites**

April 10-12, 2012

Philadelphia, PA

[https://superfund.usace.army.mil/superfund\\_production/dchws/Home.aspx](https://superfund.usace.army.mil/superfund_production/dchws/Home.aspx)

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**ITRC Spring Meeting**

April 16-20, 2012

Des Moines, IA

<http://itrcweb.org/conferences.asp>

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**US EPA Technical Support Project Spring Meeting**

April 30-May 4, 2012

Oklahoma City, OK

<http://www.epa.gov/tio/tsp/meetings.htm> (Or contact Linda Fiedler at 703-603-7194)

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**National Water-Quality Monitoring Conference**

April 30 - May 4, 2012

Portland, OR

<http://acwi.gov/monitoring/conference/2012/index.html>

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STL Newsletter Archives:

<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

**E2S2 Conference**

May 21-24, 2012

New Orleans, LA

<http://e2s2.ndia.org/Pages/Default.aspx>

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**Battelle Conference: Remediation of Chlorinated and Recalcitrant Compounds**

May 21-24, 2012

Monterey, CA

<http://www.battelle.org/Conferences/chlorinated/index.aspx>

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**NARPM 2012**

Week of October 22, 2012

Location TBD

<http://www.epanarpm.org>

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## WEB PAGES

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**[Technical Support Project \(TSP\) Expertise Directory](#)**

The TSP Expertise Directory is a searchable directory that provides a snapshot of the various types of expertise possessed by the current members of the three TSP Forums (Ground Water, Federal Facilities and Engineering). It is based on input provided by forum members. EPA Regional Forum representatives will help EPA staff initiate a technical assistance project or site visit from the appropriate Technical Support Center. View or download at

<http://epa.gov/tio/tsp/download/expertise.pdf> .

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STL Newsletter Archives:  
<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

### [Interstate Technology & Regulatory Council \(ITRC\) Website Features National Successes](#)

The ITRC Success Story page highlights new success stories that show how ITRC products significantly contribute to developing solutions to national environmental challenges. The success stories are organized generally by topic and represent the wide variety of uses served by ITRC products. View and submit success stories at <http://www.itrcweb.org/successstories.asp>.

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### [National Institute of Environmental Health Sciences' \(NIEHS\) Superfund Research Program \(SRP\) Reaches Milestone in Research Dissemination](#)

NIEHS is celebrating the publication of its 200th Research Brief. Each of these briefs present timely and relevant SRP-funded research findings in the areas of environmental health sciences and remediation. Past and future issues of the Research Brief can be accessed on the SRP website at: <http://tools.niehs.nih.gov/srp/researchbriefs/>.

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### [Megasite Management Toolsuite \(2011\)](#)

This software supports the integrated planning and assessment of megasite revitalisation options in ecologic, economic and sustainability terms through interconnected software modules, which operate on the basis of an integrated GIS database. A description of the Megasite Management Toolsuite and a User's Guide are available at the website: <http://www.safira-mmt.de> in English and German. The software itself is available on request.

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### [Updated CLU-IN Vapor Intrusion Issue Area](#)

Vapor intrusion occurs when volatile chemicals migrate from contaminated groundwater or soil into a building. Volatile chemicals can emit vapors that may migrate through the subsurface and into indoor air spaces of overlying and nearby buildings in ways similar to that of radon gas seeping into homes. Most volatile chemicals are volatile organic compounds (VOCs), but some semi-volatile organic compounds (SVOCs), such as petroleum products, and inorganic constituents, such as elemental mercury and radon, can emit vapors leading to vapor intrusion. In extreme cases, the vapors may accumulate in homes and other occupied buildings to levels that may pose near-term safety hazards (e.g., explosion), acute health effects, or odor problems. Typically, however, the chemical concentration levels with vapor intrusion are low, and the odor unnoticeable. In buildings with low concentrations of volatile chemicals, the main concern is whether or not the chemicals pose an unacceptable risk of chronic health effects due to long-term exposure to these low levels. A complicating factor in evaluating the potential risk from chemical exposure due to vapor intrusion is the common presence of some of the same chemicals

STL Newsletter Archives:  
<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

from sources with the building (e.g., household solvents and paints, gasoline, drycleaned clothing, and cleaning agents) that may pose, separately or in combination with vapor intrusion, a significant human health risk. View and use at <http://clu-in.org/vi> .

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### [EPA Dioxin Tool Box](#)

Included here is a link to the User's Guide for the Uniform Federal Policy (UFP) Quality Assurance Project Plan (QAPP) Template for Soils Assessment of Dioxin Sites. It discusses using incremental composite sampling to evaluate dioxin-contaminated soil. The tool box is available on EPA's website at:

<http://www.epa.gov/superfund/health/contaminants/dioxin/dioxinsoil.html>.

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## RECENT DOCUMENTS, DATABASES, ETC.

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These entries are arranged alphabetically. Thanks to TechDirect, Tech Trends, NRMRL News, the ETV Program, DOE, DoD and others for posting their latest documents. And remember, many of these are available in paper format in the Region 9 library. If you have access to the EPA libraries, please use them! Some items require that you have an account for access.

(NOTE: Some multi-line URLs may need to be cut and pasted. Sorry for the difficulty.)

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**Applied NAPL Science Review - July 2011 Issue**  
<http://www.h2altd.com/knowledge-center>

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STL Newsletter Archives:  
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U.S. EPA. 2011. Chen, A.S., B.J. Yates, L. Wang, and V. Lal. "**Arsenic Removal from Drinking Water by Coagulation/Filtration - U.S. EPA Demonstration Project at Village of Waynesville, IL - Final Performance Evaluation Report.**" EPA/600/R-11/071.  
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**Biofuels: Release Prevention, Environmental Behavior, and Remediation (September 2011) (ITRC Document)**  
<http://itrcweb.org/documents/biofuels/biofuels-1.pdf>

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**A Citizen's Guide to Drycleaner Cleanup**  
(EPA 542-F-11-013)  
[http://www.drycleancoalition.org/download/citizens\\_guide\\_drycleaner\\_cleanup.pdf](http://www.drycleancoalition.org/download/citizens_guide_drycleaner_cleanup.pdf)

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**CleanUp 2011: 4th International Contaminated Site Remediation Conference, Program and Proceedings**  
<http://www.cleanupconference.com/2011%20CleanUp%20Conference%20Proceedings.pdf> .

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**Consideration of Natural Attenuation in Remediating Contaminated Sites (2011)**  
<http://www.umweltbundesamt.de/uba-info-medien-e/4131.html> .

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**Development of Performance Specifications for Solidification/Stabilization (July 2011)**  
(ITRC Document)

[http://itrcweb.org/Documents/solidification\\_stabilization/ss-1.pdf](http://itrcweb.org/Documents/solidification_stabilization/ss-1.pdf)

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**Electronic Data Deliverables: The Importance of Receiving Your Site and Project Data Electronically (EDD Fact Sheet) and its Appendix**

[http://www.epa.gov/tio/tsp/download/final\\_edd\\_fact\\_sheet.pdf](http://www.epa.gov/tio/tsp/download/final_edd_fact_sheet.pdf)

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**Emerging Contaminants - 2,4,6-Trinitrotoluene (TNT)**

(EPA 505-F-10-010)

[http://www.epa.gov/fedfac/documents/emerging\\_contaminant\\_tnt.pdf](http://www.epa.gov/fedfac/documents/emerging_contaminant_tnt.pdf) .

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**Emerging Contaminants - Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)**

(EPA 505-F-10-009)

[http://www.epa.gov/fedfac/documents/emerging\\_contaminant\\_rdx.pdf](http://www.epa.gov/fedfac/documents/emerging_contaminant_rdx.pdf) .

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**Environmental Cleanup Best Management Practices: Effective Use of the Project Life Cycle Conceptual Site Model**

(EPA 542-F-11-011)

<http://www.epa.gov/tio/download/remed/csm-life-cycle-fact-sheet-final.pdf>

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<http://www.epa.gov/nrmrl/pubs/600r11063/600r11063vr.pdf>

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**Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites (February 2011)**

(ITRC Document)

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#### **Navy Remedial Optimization Documents**

[https://portal.navfac.navy.mil/portal/page/portal/NAVFAC/NAVFAC\\_WW\\_PP/NAVFAC\\_NFE\\_SC\\_PP/ENVIRONMENTAL/ERB/WG-OPT](https://portal.navfac.navy.mil/portal/page/portal/NAVFAC/NAVFAC_WW_PP/NAVFAC_NFE_SC_PP/ENVIRONMENTAL/ERB/WG-OPT)

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(ITRC Document)

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#### **Project Risk Management for Site Remediation (March 2011)**

(ITRC Document)

<http://itrcweb.org/Documents/RRM-1.pdf>

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STL Newsletter Archives:

<http://www.epa.gov/osp/hstl/hstlnewsletter.html>

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**Remediation System Evaluation (RSE), Moss-American Superfund Site, Milwaukee, Wisconsin**

(EPA-540-R-11-018)

<http://epa.gov/superfund/cleanup/postconstruction/pdfs/Final%20Moss%20American%20RSE.pdf>

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**Remediation System Evaluation, Colbert Landfill Superfund Site, Spokane County, Washington**

(EPA-540-R-11-020)

<http://epa.gov/superfund/cleanup/postconstruction/pdfs/Final%20Colbert%20RSE.pdf>

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**Streamlined Remediation System Evaluation, Wash King Laundry Superfund Site, Pleasant Plains Township, Michigan**

(EPA-540-R-11-019)

<http://epa.gov/superfund/cleanup/postconstruction/pdfs/Final%20Wash%20King%20RSE.pdf>

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**Technology News and Trends**

(EPA 542-N-11-003)

(July 2011, 6 pages)

<http://clu.in.org/download/newsletters/tandt0711.pdf>

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**Technology News and Trends**

(EPA 542-N-11-004)

(September 2011, 6 pages)

<http://clu.in.org/download/newsletters/tandt0911.pdf>

**Updated Radioactive Contaminated Land Exposure Assessment (RCLEA) Process Methodology (2011)**

<http://www.environment-agency.gov.uk/research/planning/33746.aspx> .

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### Disclaimer

This quarterly newsletter publication is meant to be used for information only. It does not represent the opinion of the management of the regional or national offices of EPA, only that of the author. The accuracy of the information contained herein is not guaranteed, only desired. If corrections are necessary, please contact the author. Thanks again to all of my information resources, which include EPA's OSRTI (formerly TIO), ORD (including ETV and NRMRL News), NIEHS, DoD and the Groundwater Resources Association of California.

Thanks for reading it! Comments and suggestions are appreciated. If you wish to be added to or deleted from this list, please send me an email. (gill.michael@epa.gov)

Newsletter archives can be found on the EPA intranet site.....

<http://www.epa.gov/osp/hstl/hstlnewsletter.htm>

A number of environmental technology web resources can be found here.....

<http://www.epa.gov/region9/waste/techlinks/>

And don't forget the "STL" website.....

<http://www.epa.gov/osp/hstl.htm>

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STL Newsletter Archives:  
<http://www.epa.gov/osp/hstl/hstlnewsletter.html>