

New Year, New CLU-IN!

Sponsored by:

*USEPA, OSWER, OSRTI,
Technology Innovation Program*

January 2009

New Year, New CLUIN

1

Welcome to today's internet seminar, "What's New with CLU-IN? Highlights and Future Directions". Hopefully everyone is starting on slide 1, our title slide. My name is Jean Balent. I'm an environmental scientist here at the Environmental Protection Agency's Technology Innovation Program. I will serve as both the moderator and primary speaker for today's session. Joining as well as are several other members of TIP. We are also joined by our technical support from Pete Riddle of EMS Inc. who serves as the primary contractor for CLU-IN.

I want to thank you all in advance for your participation and feedback during today's seminar.

Let's move onto slide 2 to cover some basic housekeeping.

Housekeeping

- Please mute your phone lines
 - press *6 to mute #6 to unmute your lines at anytime
- Do NOT put this call on hold
- We will ask for your feedback today. You do not need to wait for Q&A breaks to ask questions or provide comments
- To report technical problems, please use the chat field to right of your screen, include a phone # where you can be reached
- You can move forward/backward in the slides by using the arrow buttons



January 2009

New Year, New CLUIN

2

Although I'm sure that some of you have these rules memorized from previous CLU-IN events, let's run through them quickly for our new participants.

Please mute your phone lines during the seminar to minimize disruption and background noise. If you do not have a mute button, press *6 to mute #6 to unmute your lines at anytime. Also, please do NOT put this call on hold as this may bring delightful, but unwanted background music over the lines and interrupt the seminar.

You should note that throughout the seminar, we will ask for your feedback. You do not need to wait for Q&A breaks to ask questions or provide comments. To submit comments/questions and report technical problems, please use the ? Icon at the top of your screen. You can move forward/backward in the slides by using the single arrow buttons (left moves back 1 slide, right moves advances 1 slide). The double arrowed buttons will take you to 1st and last slides respectively. You may also advance to any slide using the numbered links that appear on the left side of your screen. The button with a house icon will take you back to main seminar page which displays our agenda, speaker information, links to the slides and additional resources. Lastly, the button with a computer disc can be used to download and save today's presentation materials.

With that, please move to slide 3.

Presentation Overview

- CLU-IN History
- CLU-IN Structure/Tour
- What is CLU-IN?
- Updates to CLU-IN
- Feedback
- Future Efforts

Today's Speakers will include
Technology Innovation Program Staff
and CLU-IN support contractors



Jean M. Balent
Environmental Scientist
703-603-9924
balent.jean@epa.gov



Michael Adam
Environmental Scientist
703-603-9915
adam.michael@epa.gov

January 2009

New Year, New CLUIN

3

In today's seminar we will cover a few topics. First, I'll provide a brief explanation of the motivations behind today's seminar, along with an overview of the clu-in website and its relationship to the EPA's Technology Innovation Program for those who are new to the website and our services. Next I will highlight recent updates to clu-in with a break to discuss users' opinions of these changes. We'll then take a sneak peak at a few planned updates to the site, pausing of course to hear what you think of these ideas. We will then move onto a similar review of the existing clu-in internet seminar platform (that's what we are using today) and talk about our vision for future seminars. Finally we'll take a few moments to hear additional comments and wrap things up.

Most importantly, there will be a series of very specific questions on changes to clu-in and our internet seminar platforms included in the feedback form at the very end of our talk. Please take a few moments to complete this form as this information is one of primary reasons for hosting today's seminar.

Lets move to the next slide.

CLU-IN Overview

- Hazardous Waste **C**lean-**U**p **I**nformation (CLU-IN) – source for hazardous waste site characterization and remediation information
www.clu-in.org
- EPA content on CLU-IN is mirrored on the EPA.gov website at www.epa.gov/tio
- To date, CLU-IN has seen 6.8 million visitors, averaging almost 4,000 visits a day

January 2009

New Year, New CLUIN

4

The Hazardous Waste Clean-Up Information (CLU-IN) Web Site provides information about innovative treatment and site characterization technologies to the hazardous waste remediation community. It describes programs, organizations, publications, and other tools for federal and state personnel, consulting engineers, technology developers and vendors, remediation contractors, researchers, community groups, and individual citizens like you. clu-in is provided by the EPA's Technology Innovation Program (aka Technology Innovation and Field Services Division, formerly known as the Technology Innovation Office). Let me end the alphabet soup there and simply state that TIP is part of the Superfund Program.

By hosting clu-in as an outside website, TIP has had the power to share a wide variety of information from many sources with the public. We do also work to maintain an EPA presence by mirroring all EPA content from clu-in off the EPA's public website.

To give you an idea of clu-in's popularity, as of April 2007, 3.2 million visitors have been to clu-in, averaging 2,000 visits a day.

Please move to slide 6

CLU-IN's History

- Bulletin Board System (1987)
- CLU-IN Web Site Launched (1996)
- TechDirect Information Service Launched (1997)
- Streaming Videos (1998)
- Vendor and Developer Support (1998)
- Internet Seminars (1999)
- Online Databases (1999)
- Technology Focus (1999)

CLU-IN has grown quite a bit in the past 12 years!

- Conference Webcasts (2000)
- Field Analytic Technologies Encyclopedia (2001)
- Technology Innovation News Survey Archives (2002)
- Contaminant Focus (2003)
- Upgraded CLU-IN Search Engine (2004)
- Project Profile Databases Search (2005)
- RSS Feed (2005)
- Internet Seminar Archive Podcasts (2005)
- Issue Areas (2006)

January 2009

New Year, New CLUIN

5

The origin of CLU-IN reach back to an early electronic Bulletin Board System. The CLU-IN web site was launched in 1996, and was operated in parallel with the CLU-IN BBS between 1996 and 1999. In 1999, The CLU-IN BBS was discontinued to better serve the growing CLU-IN web site user community. Some major CLU-IN events such as the start of TechDirect and Internet Seminars began this same year. Some of the more recent changes listed on this slide such as the addition of RSS and Podcast feeds will be discussed in today's seminar.

Please move to the next slide.

Early Versions of CLU-IN

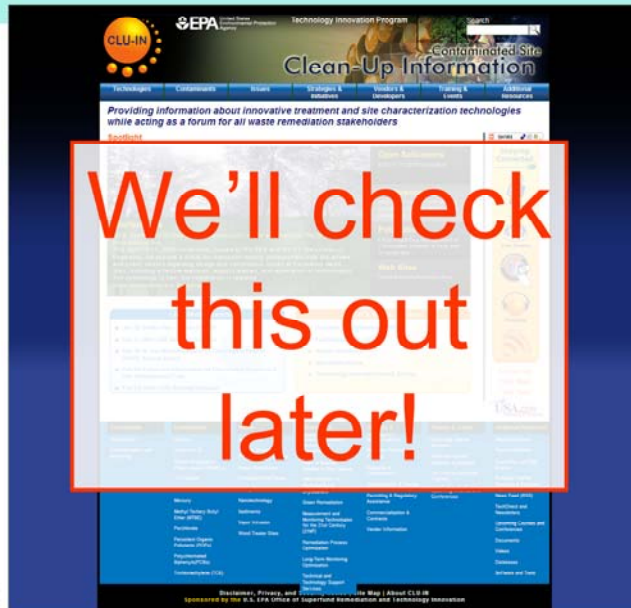


January 2009

NEW Year, NEW CLU-IN

6

New CLU-IN



January 2009

7

CLU-IN (New) Structure

Technologies

Remediation
Characterization and Monitoring

Contaminants

Arsenic
Chromium VI
Dense Nonaqueous Phase Liquids (DNAPLs)
1,4-Dioxane
Dioxins
Mercury
Methyl Tertiary Butyl Ether (MTBE)
Perchlorate
Persistent Organic Pollutants (POPs)
Polychlorinated Biphenyls(PCBs)
Trichloroethylene (TCE)

Issues

Brownfields
Triad: A Smarter Solution to Site Cleanup
Green Remediation
Ecological Land Reuse
Mining Sites
Nanotechnology
Sediments
Vapor Intrusion
Wood Treater Sites

Strategies & Initiatives

Federal Remediation Technologies
Roundtable

Triad: A Smarter Solution to Site
Cleanup

State Coalition for Remediation of
Drycleaners

Green Remediation

Measurement and Monitoring
Technologies for the 21st
Century (21M2)

Remediation Process Optimization

Long-Term Monitoring Optimization
Technical and Technology Support
Services

Vendors & Developers

Market Analysis

Business Planning and Funding

Research & Development

Demonstration & Testing

Permitting & Regulatory Assistance

Commercialization & Contracts

Vendor Information

Training & Events

Upcoming Internet Seminars

Archived Internet Seminars &
Podcasts

The Training Exchange (Trainex)

Upcoming Courses and
Conferences

Additional Resources

Recent Additions

Popular Additions

Upcoming Live Web Events

Archived Internet Seminars &
Podcasts

News Feed (RSS)

TechDirect and Newsletters

Upcoming Courses and
Conferences

Documents

Videos

Databases

Software and Tools

January 2009

New Year, New CLUIN

8

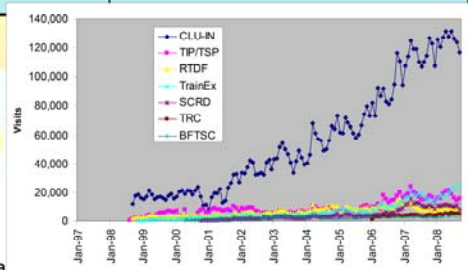
CLU-IN's Impact

	FY 08	Total
Visits	1.48 million	6.8 million
Downloads	234,000	1.3 million
Seminars	128	567

#1 search result in Google for
 "hazardous waste
 remediation/clean up"

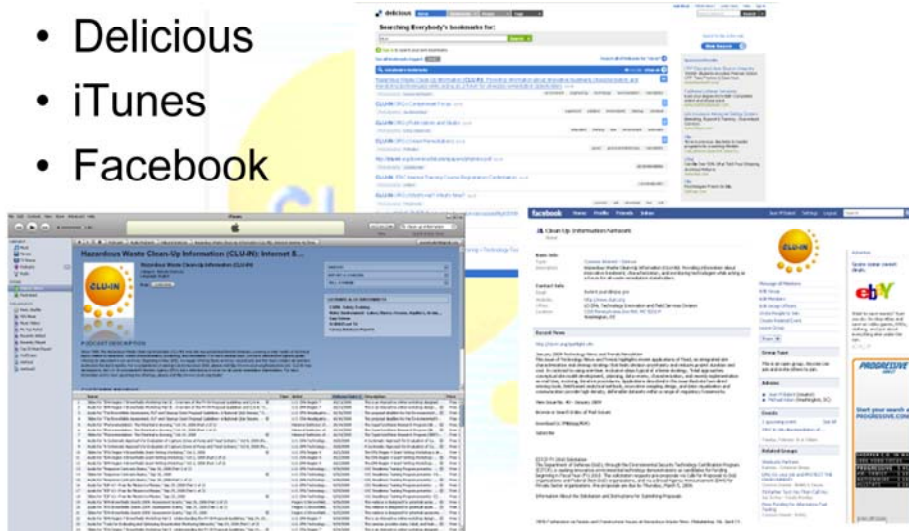
January 2009

New Year



CLU-IN's visibility

- Delicious
- iTunes
- Facebook



January 2009

New Year, New CLUIN

10

CLU-IN is... an information resource

- 664 Publications and other resources
- 18 Databases & almost 14,000 Case Studies, Profiles, and other Reports
- 14 Software Programs
- 29 Videos



January 2009



New Year, New CLUIN

Search Summary

Criteria	Count
Number of Profiles	1
Number of Publications	1
Number of Case Studies	1
Number of Reports	1

Display Your Results (Results in Page 1 of 1)

1 of 1 profiles match your criteria

Title	City	State	Country
Bioremediation of DNAPL Source Zones	Richmond	VA	United States
Field Application of In-Situ Bioremediation Technologies for DNAPL Source Zones	Richmond	VA	United States

1 of 1 profiles match your criteria

Title	City	State	Country
Bioremediation of DNAPL Source Zones	Richmond	VA	United States

1 of 1 profiles match your criteria

Title	City	State	Country
Bioremediation of DNAPL Source Zones	Richmond	VA	United States



11

CLU-IN is... training

- Free online technical training and conference webcasts (www.cluin.org/training)
- Seminars are recorded and archived for later viewing
- 185,000+ Archive/Podcast downloads in FY 08

Examples of Recent Seminars:

	FY 08	Total
Seminars	128	567
Participants	17,000+	86,000+

• *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems*

• *Using High-resolution Piezocone to Determine Hydraulic Parameters and Mass Flux Distribution*

• *Sustainable Practices, Brownfields Prevention Challenge 1: South Suburban Mayors and Managers(SSMMA), IL*

January 2009

New Year, New CLUIN

12

CLU-IN is ... news for professionals

- Four email/paper newsletters available (<http://clu-in.org/newsletters/>)
 - TechDirect: 31,951 Subscribers
 - Technology News and Trends: 8,634 Subscribers
 - Technology Innovation News Survey: 5,531 Subscribers
 - Federal Business Opportunities: 3,311 Subscribers
- RSS News Feed (<http://www.clu-in.org/rss/>) for immediate updates



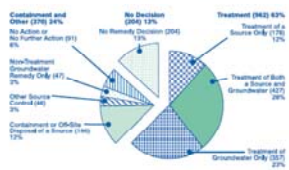
January 2009

New Year, New CLUIN

13

CLU-IN is ... a pulse for trends

Figure 1: Actual Remedy Types at Sites on the NPL
FY 1982 - 2005*
Total Number of Sites = 1,536



Treatment remedies are planned or implemented at 63 percent of NPL sites.

The issue of Technology Needs and Trends highlights innovative approaches for addressing contaminated sediment sites. Examples of these approaches include sediment dewatering through use of granular cements, dredged sediment storage layers in case of withdrawn bank surface and subsurface conditions, new results in predicting navigational vessel impacts on tug performance, and placement of cages in very close lifts over soft sediments.

Innovative Dredging Technology Accelerates Removal of Residual Contamination in Astabula River

The U.S. EPA's Great Lakes National Program Office (GLNPO) and first non-federal sponsor, the Ashland City Port Authority, along with the State of Ohio, the U.S. Army Corps of Engineers (ACEC), and a consortium of private companies collaborated to design and implement an innovative approach for addressing extensive sediment contamination in a portion of the Ashabula River near Lake Erie. The approach employed a hybrid system for hydraulic dredging, an ultrasonic, double-walled pipeline for sediment slurry transfer, and a component of the transport of contaminated sediment to "dewatering tanks" at a nearby treatment facility. Over 13 months, the system treated an approximately

100,000 cubic yards of sediment. The system's design and construction were based on a hybrid of hydraulic dredging, ultrasonic dewatering, and sediment storage. The system also provides improved sediment containment and treatment of dredged solids. The system was developed by representatives from Ashabula City Port Authority, U.S. Army Corps of Engineers, and the U.S. Department of Defense. Visit the website page at <http://www.glnpo.gov> for more information.

- **TechDirect and Technology News and Trends**
- **Issue Areas** for emerging problems
- **Annual Status Report** surveys technologies and trends at SF sites
- **ITRC, NIEHS, & SBPR, ESTCP/SERDP** Internet Seminars disseminate info on important issues and new research

January 2009

New Year, New CLUIN

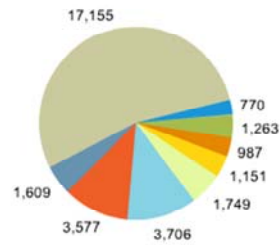
14

CLU-IN is ... a connection

- Brings together regulators, educators, students, consultant, site owners, community stakeholders from around the world
- Crosses programs: Superfund, Brownfields, RCRA, State Voluntary Clean Up, Federal Facilities
- ITRC, NIEHS, SBRP, OBCR, FRTR and others are supported with outreach and information delivery mechanisms

TechDirect Subscribers as of October 31, 2008

EDU MIL ORG COM NET
Int'l State EPA GOV



Total Subscribers: 31,967

What's New with CLU-IN?

- Additional information resources
- Slides added to Podcast
- Improved seminar interface and audio
- Increased seminar participant capacity
- More seminar series – technology focused
- Updates to look and feel of CLU-IN
- Improved organization

What's New? Issue Areas & Resources

<http://clu-in.org/greenremediation/>

January 2009

<http://clu-in.org/ecotools/>

New Year, New CLUIN

17

What's New? Information Resources

- Searchable Vendor Directory

Remediation and Characterization Technologies Vendor Directory

Search the Technology Vendor Directory

This directory contains contact information as well as technology and services provided by remediation and characterization technology vendors. You may search by vendor name, technology category, contaminant, media, and site type. Use the text fields and drop-down menus below to build your criteria for searching the Vendor Directory. Click on the search button at the end of the form to submit your search. Please read the [Vendor Information Disclaimer](#) about its use.

Technology Vendor Search Results

Technology Category=Characterization
Characterization Technology Type=Soil Gas Analyzer Systems

The 6 vendors listed below match your search criteria. Click on a vendor name in the list to view contact information and details on their services and/or technology availability.

Vendor Name	City	State
Beacon Environmental Services, Inc.	Bel Air	MD
Columbia Technologies, LLC	Baltimore	MD
Columbus Instruments	Columbus	OH

Vendor: Columbia Technologies, LLC
Location: Baltimore, MD
Contact Information: Ned Tillman
 Vendor: Columbia Technologies, LLC
 Phone: (410) 330-9911
 Email: ntillman@columbiadata.com
 Web Site: www.columbiadata.com
Technology Category: Characterization

Trade Name: Direct Sensing
Technology Type: Downhole sensors - Vadose Zone
Contaminant Group: Benzene-toluene-ethylbenzene-xylene (BTEX)
 Nonhalogenated volatiles
Media Type: Soil gas

In 2009, vendors will be able to update and add additional entries

What's New?

Slides with Podcast

- Direct links to download slides are included in Podcast
- Easy access to audio and powerpoint from iTunes or other Podcast services

Hazardous Waste Clean-Up Information (CLU-IN): Internet Seminar Archives

⊞ Slides for "Green Remediation: Opening the Door to Field Use Session B (Green Remediation Tools and Examples)," Dec 16, 2008

⊞ Audio for "Green Remediation: Opening the Door to Field Use Session B (Green Remediation Tools and Examples)," Dec 16, 2008 (Part 1 of 2)

⊞ Audio for "Green Remediation: Opening the Door to Field Use Session B (Green Remediation Tools and Examples)," Dec 16, 2008 (Part 2 of 2)

Tip: To subscribe to the Podcast, use <http://www.clu-in.org/live/archive.xml>

Tip: To find the Podcast in iTunes, search for "Clean up Information"



January 2009

New Year, New Goals

19

What's New? Improved Audio

United States Environmental Protection Agency Technology Innovation Program

Seminar Registration Form

To ensure that you receive your registration confirmation email, please add talent.jean@epa.gov to your address book or list of approved senders before registering.

Technical Requirements
In order to participate in our streaming audio broadcast of this seminar, you must have the following:

1. **Adobe Flash Player** If you do not already have this browser plug-in it is available for free using the button on the right. If you are not sure whether you have a compatible version, you may test your installation by selecting the sample clip. If you are unable to listen to the audio clip, you either are behind an Internet firewall that prevents you from listening to streaming audio or you must download the latest version of one this player. If you require any assistance, please contact the IT professionals within your organization.
2. A sound card and speakers installed on the computer you will be using to participate in the seminar.
3. An Internet connection for the duration of the seminar. We recommend a connection speed of at least 128 kbps. In general, the larger the monitor you will be using to view seminar materials online, the faster your connection must be.

***Required Fields**

Preferred Audio Format: Adobe Flash MP3 MP3

Date: January 30, 2009 - 1:00 PM - 2:00 PM EST

First Name*:

Last Name*:

Organization*:

- Audio now streamed as MP3 format
- Improved seminar recording quality
- Use links to test your PC to ensure compatibility

January 2009

New Year, New CLUIN

20

What's New? Internet Seminar Platform

Public, 2-way chat

Cleaner, modern look

Easier to find materials

Faster loading slides

January 2009

New Year, New CLUIN

21

What's New? Internet Seminar Platform

- Plan to increase participant capacity throughout 2009
- Participants still move through slides on their own to keep them engaged in session
- Names can be removed for anonymous question submission

What's New? Focused Themes

- Throughout 2009, CLU-IN will offer themes to highlight resources, training, and information for particular technologies and issues

Green Remediation

Triad

Conceptual Site Models

Site Data Management

Membrane Interface Probes (MIP)

What other issues
or technologies
are of interest to you?

What's New? CLU-IN "Face-lift"

The screenshot shows the CLU-IN website interface with several callout boxes pointing to specific features:

- Main Topics:** Points to the top navigation menu.
- Live Events:** Points to the 'Live Web Events' section.
- Site Structure:** Points to the left-hand navigation menu.
- Site Search:** Points to the search bar at the top right.
- News feeds, Podcasts, TechDirect:** Points to the right-hand sidebar containing various media links.
- News items:** Points to the main content area displaying news articles.

January 2009

New Year, New CLUIN

24

What's New?

Integration of Connection Tools



News items

Listing of upcoming seminars and events

TechDirect Newsletter

Podcast for immediate access to latest archived seminars

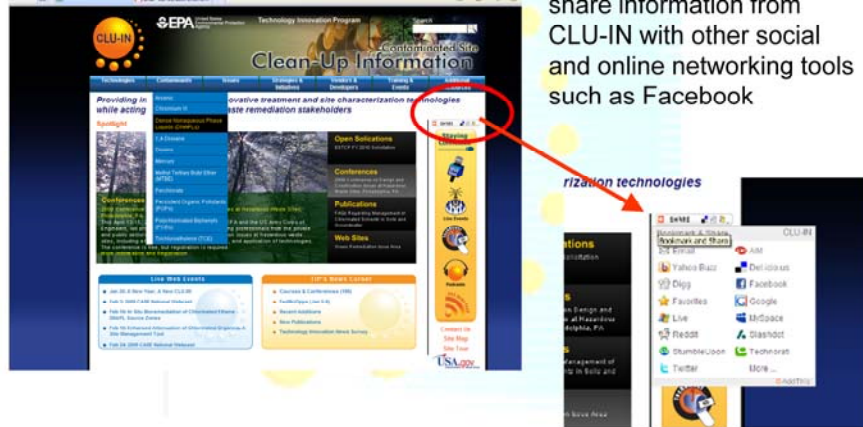
RSS Feed for immediate alerts of new postings, archives, etc

These links will appear throughout the site to constantly keep you connected

What's New?

Integration of Connection Tools

Along with other connected options, you can easily share information from CLU-IN with other social and online networking tools such as Facebook



January 2009

New Year, New CLUIN

26

Your feedback is important!

- We rely heavily on visitor feedback to focus our efforts!
 - Submit Feedback at end of today's event
- Use the "Contact Us" link
- Send an email to balent.jean@epa.gov or adam.michael@epa.gov

Future Efforts

- What would you like to see from CLU-IN in the future?
 - Technology Vendor Discussions
 - Commenting and rating tools for documents and resources
 - More live events with experts
- How can it be more useful to you as a resource?



Thank you!