



National Institute of  
Environmental Health Sciences



# 2014

## ANNUAL REPORT

for the National Clearinghouse  
for Worker Safety and Health Training



## TABLE OF CONTENTS

Overview .....	1
Prime Task 1.....	3
Prime Task 2.....	6
Prime Task 3.....	9
Prime Task 4.....	13
Appendix A—Clearinghouse Advisory Board Meeting Notes.....	17
Appendix B—Section 508 Report for the Clearinghouse Site.....	21
Appendix C—Section 508 Report for WETCIS.....	31

### **Operated by MDB, Inc.**

1101 Connecticut Avenue NW, Suite 550  
Washington, DC 20036  
t: 202.331.7733 f: 202.331.0044

<http://tools.niehs.nih.gov/wetp>

Order #273-2010-00083U

2014 Annual Report for the National Clearinghouse for Worker Safety and Health Training  
2013/2014 Year End Report



*Just as the risks surrounding hazardous materials and waste are present every day, those charged with making it safer to work around these dangerous substances must make every year count. New workers must be trained, and veteran workers need refresher courses and new information. Up-to-date resources must be readily available, and new challenges need to be addressed.*

*That's why fulfilling the mission of the National Institute of Environmental Health Sciences (NIEHS) Worker Training Program (WTP) requires smooth operations and forward momentum year after year. Information sharing, ongoing dialogues with experts, and steady progress toward meeting new needs and exploring emerging issues are all imperative. For the WTP, all of that has happened over the last year.*

*MDB, Inc. is pleased to provide this overview of the communication and technical assistance services it provided from September 15, 2013, to September 14, 2014 – the fifth year in MDB's current contract.*

*The report opens with a brief overview of key activities from the last year. That summary is followed by a more in-depth discussion, organized by designated tasks. Appendices at the end of the report provide additional details.*

# OVERVIEW



## A Year in Review

Throughout the year, the National Clearinghouse continued to serve as the go-to source for technical information and training materials. The website attracted a steady stream of visitors, more than 16,000 documents were downloaded from the Health and Safety Library (HASL), and nearly 18,000 booklets were ordered and distributed.

New courses and booklets were added to the inventory, and others were updated. For example, a new mental health resiliency course was made available. Following a major mudslide in Colorado, the resource pages on floods were updated. And a new booklet on mold cleanups became the most popular resource of the year.

Productive workshops and meetings were held to share information, explore new initiatives, and pursue the fulfillment of new directives. By engaging experts and building relationships with state and local officials, those discussions will continue to bear fruit in the years ahead.

## Moving Forward

In addition to new content and discussions, new ways to deliver information were developed. A hallmark of the year was making many training tools available, for the first time, through mobile apps, ensuring that critical information is even more accessible, especially for workers on dangerous sites. And the groundwork has been laid for an improved website.

The year also featured significant progress on exciting new products and initiatives that will be completed in the coming months.

**Minority Training:** As the WTP strives to increase the number of minorities working in construction and environmental remediation, new studies on minority training and the economic benefits of opening doors of opportunities to minorities are nearing completion. These will provide an underpinning for achieving minority training goals, and quantify the economic value of doing so.

**Improved Website:** People regularly visit the Clearinghouse website, finding valuable information and discovering new topics. But, especially with a growing amount of content, the site needs to be made more user-friendly – more appealing and easier to navigate. A significant redesign of the website is now underway to achieve those improvements and ensure that users will find the site better and easier to use in the future.

**Mental Health Resiliency:** Dealing with disasters can take a toll on workers beyond the physical dangers. The Deepwater Horizon oil spill, in particular, exposed the seriousness of behavioral health consequences faced by response and recovery workers. That prompted the development of new training curricula to address mental health resiliency. Working with the Substance Abuse and Mental Health Services Administration (SAMHSA), the program is now being pilot tested and will soon be ready for broader distribution.

In other words, over the last 12 months, thousands of people benefited from high-quality technical information and training materials. New stakeholders were engaged in meaningful and productive ways. And new initiatives are now underway that will provide additional quality products through new and improved communications channels.

Over the last 12 months, thousands of people benefited from high-quality technical information and training materials

# PRIME TASK: ONE

## ENSURING EFFICIENT OPERATIONS

*Establish, manage, and operate an information clearinghouse for the distribution of technical information produced by WTP.*

### Los Angeles Refinery

## WARNING

This area contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

California Health and Safety Code Section 25249.6  
For further information about this warning, call (800)762-0942

**THIS INSTALLATION IS A FEDERALLY PROTECTED ENERGY FACILITY**  
It is a federal crime punishable by a fine and up to 10 years imprisonment for any person to willfully damage or attempt to damage this facility.

Title 18, Section 1366, United States Code

**RESTRICTED AREA**  
No unauthorized personnel beyond this point.

**TRESPASSING / LOITERING FORBIDDEN BY LAW**

Cal. Penal Code 555/602

In case of emergency call: (310) 834-5264

MDB remains focused on the Clearinghouse's mission. It constantly works to ensure that the project is well-managed and that communications remain open and clear. Maintaining smooth operations is not only critical to achieving program objectives, but the proper stewardship of WTP resources.

### Monthly Meetings Summaries

Central to this management focus are the monthly trips that MDB's Deborah Weinstock takes to Research Triangle Park, North Carolina, to meet with Worker Education and Training Branch (WETB) staff to discuss activities and the budget. Each month, Weinstock provides the WETB a new report, which includes a budget spreadsheet and a summary of contract tasks. Other Clearinghouse team members regularly join Weinstock at the meetings, in person or via teleconference.

This form of reporting maintains accountability for the project, while allowing for the necessary degree of flexibility to address changing priorities. The meetings provide an opportunity to review and set priorities and move forward on specific projects.

### HASL and the Curricula Catalog

The MDB information technology team provides timely updates to the HASL and the Curricula Catalog. These two repositories are widely used throughout the year.

Between September 1, 2013 and August 1, 2014:

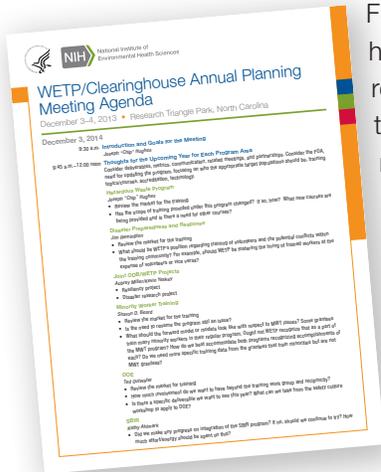
- 16,044 files were downloaded from HASL
- 1,177 files were downloaded from the Curricula Catalog
- 70 new curricular files were uploaded by awardees
- 21 courses were modified
- 8 new courses were added





## WTP/Clearinghouse Retreat

WTB and Clearinghouse staff held a retreat on December 3-4, 2013, in Research Triangle Park, North Carolina, to discuss current and future issues, events, deliverables, metrics, and partnerships within the various program areas (Hazardous Waste Worker Training Program (HWWTP), Minority Worker Training Program (MWTP), Department of Energy (DOE)/NIEHS Nuclear Worker Training Program, Small Business Innovative Research (SBIR), Hazmat Disaster Preparedness Training Program (HDPTP), and Office of the Director, Bethesda ODB).



Further discussions were held on the mental health resiliency project, accreditation requirements, and the relationship with DOE. The participants also considered the importance of community resiliency during emergency response and the need to keep open communication with local partners and communities.

## Clearinghouse Advisory Board

The Clearinghouse Advisory Board met on April 9, 2014, after the 2014 Spring WTP Awardee meeting in Los Angeles, California. Clearinghouse staff and all WTB staff participated in the meeting. MDB's Michael Baker made opening remarks and welcomed the participants to the meeting. Deborah Weinstock provided an overview of progress on the NIEHS WTP Operational Matrix and the preliminary results of the economic impact study pilot. Discussions were held on the Strategic Plan, the Operational Matrix, Superstorm Sandy updates, the new WTP funding announcement, and topics for future workshops.



## Clearinghouse Advisory Board

### 2014 Meeting Participants

Alex Prenzias, OAI, Inc.

Audrey Gotsch, New Jersey/New York Hazardous Materials Worker Training Center

Barbara McCabe, International Union of Operating Engineers National HAZMAT Program

Carol Rice, Midwest Consortium for Hazardous Waste Worker Training

Craig Slatin, New England Consortium

Doug Feil, National Partnership for Environmental Technology

Education (PETE)

Don Ellenberger, CPWR

Gary Gustafson, LIUNA Training & Education Fund

Janelle Rios, Texas-Utah Consortium for Hazardous Waste Worker Training

Javier Nicolalde, Nicolalde R&D, LLC

Jim Frederick, USW/The Tony Mazzocchi Center

Kenny Oldfield, Alabama Fire College

Linda Delp, Western Region Universities Consortium

Mark Catlin, SEIU Education & Support Fund

Pat Berntsen, PETE

Patricia Aldridge, HAMMER

Sanobia Brima, OAI, Inc.

Tippi Reed, OAI, Inc.

# PRIME TASK: TWO

## FACILITATING PERSON-TO-PERSON DIALOGUES

*Arrange and manage technical meetings and workshops related to scientific, administrative, and regulatory issues that are associated with training for hazardous waste workers and emergency responders.*





While making written materials available is a central part of the Clearinghouse's mission, in-person information sharing is also a valuable service, allowing interaction and give-and-take among experts and stakeholders. Productive technical meetings and workshops were organized and held over the year. Clearinghouse staff generally provided logistical support and played a major role in developing the agendas and sessions. PowerPoint presentations and other materials were captured and later posted online, amplifying the impact of the sessions.

### 2013 Fall Grantee Meeting

#### Meeting the Challenge: The Future of Worker Safety and Health Training Workshop • November 21, 2013

The federal government shutdown forced the annual 2013 fall meeting for grantees to be canceled and transformed into a webinar. The WTP provided a brief program update and outlined what it should do in the future to accomplish its mission in light of new safety and health challenges. Bryan Engelhardt of the College of the Holy Cross also presented an overview of the economic benefits analysis for the MWTP. The webinar was opened up for questions from participants, which generated interesting discussion regarding future directions of the program.

Clearinghouse staff was involved in planning, and several planning committee calls were held to shape the agenda and ensure that logistical issues were being covered. Clearinghouse staff also worked on the logistics of arranging for the webinar and took notes during the webinar.



### 2014 Spring Awardee Meeting and Workshop

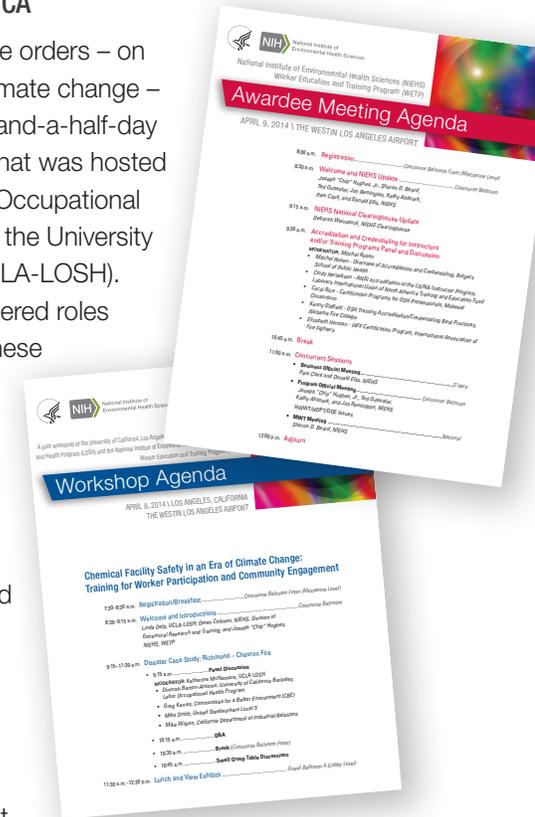
#### April 8-9, 2014 • Los Angeles, CA

Two new presidential executive orders – on chemical facility safety and climate change – were the focal point of a one-and-a-half-day session with WTP awardees that was hosted in partnership with the Labor Occupational Safety and Health Program at the University of California, Los Angeles (UCLA-LOSH). Workshop participants considered roles they might play to help fulfill these presidential directives.

Attendees used case studies to better understand how the new executive orders will impact the safety and health of workers. They also identified training best practices and discussed gaps in curriculum that need to be filled. For example, people who don't ordinarily deal with hazardous materials are often on the front lines responding to disasters. They need access to information, and potentially training, to enable them to respond safely.

Two reports – the "LOHP Refinery Safety Report to the California Governor's Interagency Task Force on Refinery Safety" and a report prepared for President Obama on his chemical facilities executive order – provided the basis of a discussion on their implications for emergency responders and plant workers. A disaster research response tabletop exercise was held prior to the meeting that involved federal, state, and local government officials, as well as community and labor union stakeholders.

Clearinghouse staff convened the planning committee, which shaped the agenda, prepared workshop presenters, and wrote the meeting report. The report captures the key highlights from the workshop, as well as best practices and lessons learned.



## 2014 Fall Awardee Meeting and Workshop

October 6-8, 2014  
Research Triangle Park, NC

The Los Angeles workshop helped set the stage for the next awardee meeting, which will focus on the serious health risks that workers in various industries will face due to climate change. Workshop participants will explore lessons learned and best practices to prepare workers for climate change effects. Participants will also discuss what curricula can be developed to help train the workforce needed to make communities more resilient as they prepare for, and respond to, the consequences of climate change.



Clearinghouse staff has been involved in planning the fall awardee meeting and workshop. Several planning committee calls were held to help shape the agenda and all logistics activities have been handled by Clearinghouse staff in preparation for the meeting. Clearinghouse staff produced a climate change vulnerability assessment report for review during the workshop.

# PRIME TASK: THREE

## DELIVERING INFORMATION

*Facilitate the transmission of technical information related to the development of safety and health training programs for hazardous waste workers and emergency responders.*



The Clearinghouse, the WTP, and its partners develop a wide array of quality training and related materials that make a difference in the health and safety of workers every day. But the content of those resources is of little value if it is not shared with the people who can benefit from them. That's why it's critical to provide avenues for the smooth delivery of information through multiple channels.

Over the last year, MDB continued to transmit information effectively through essential existing methods – the website, a weekly e-Newsbrief, and booklets – while developing new and revamped distribution platforms.

### **Training Guides in the Palm of Your Hand**

With Americans increasingly relying on smartphones and other mobile devices, new formats for delivering information are needed to specifically serve those devices and their users. Mobile device users are more likely to use apps than to browse the Web on their phones and tablets. The ability to access information quickly and conveniently is especially important for workers working with hazardous materials in the field.

A major accomplishment of the last year – and one that promises to yield significant benefits for years to come – was the transformation of all existing training tools and booklets into mobile apps that can be used on the major mobile devices – via iTunes for Apple products, Google Play, Android, and a responsive website for use with Blackberry and windows products.

The development of those apps was completed in 2014, and their availability is now ready to be promoted and rolled out in the coming year.

### **Website Development and Maintenance**

The Clearinghouse website remains the central repository and go-to place for information – the Clearinghouse's clearinghouse. Throughout the year, Clearinghouse staff provided critical maintenance of the site, while uploading new materials and updating program pages.

But it has become clear that the current Clearinghouse website needs to be updated with a more modern and appealing look and more user-friendly functionality. Consequently, during the last year, a major redesign was begun. A new layout and design of the home page and second-level pages will provide more color, images, and movement to give the site a more modern look and make it more accessible and easier to navigate.

As important as the site's visual design is, the primary focus is on improving the organization of the site to make it easier for users to find content that is there. Identifying the “right” categories in which information is organized and made available was first discussed in a thorough review of the site and brainstorming sessions.

To dig deeper, a so-called card-sorting analysis is now being used to ascertain how users themselves think of topics and categories. This analysis will inform the redevelopment of the information architecture, menu structure, and site navigation. Together, the new look and organization will provide a more logical and effective user experience to enhance access to and use of the site's content.



### Clearinghouse Web Usage

Some big-picture statistics (see chart below) on the website’s usage help tell the story of its value. Between September 15, 2013, and September 14, 2014, the site was visited 22,709 times, a decrease of 12 percent over the previous year. There was a 62 percent increase in the number of visits to the site from December 2013 to January 2014. The number of visits remained high until April 2014, with the most number of visits in March 2014. This may be due to the April 7, 2014, Disaster Research Response Tabletop Exercise, as the planning of the exercise began around January and the informational webinar took place at the end of March 2014.

Besides the Clearinghouse home page, the most visited pages were the Safety and Training of Oil Spill Response Workers page, the Awardee Meetings and Workshops page, and the WTP 2014 Spring Awardee Meeting page.

If visitors didn’t go directly to the site, the frequent referring sites, which provided links to the pages, were Google, Bing, and Wikipedia.

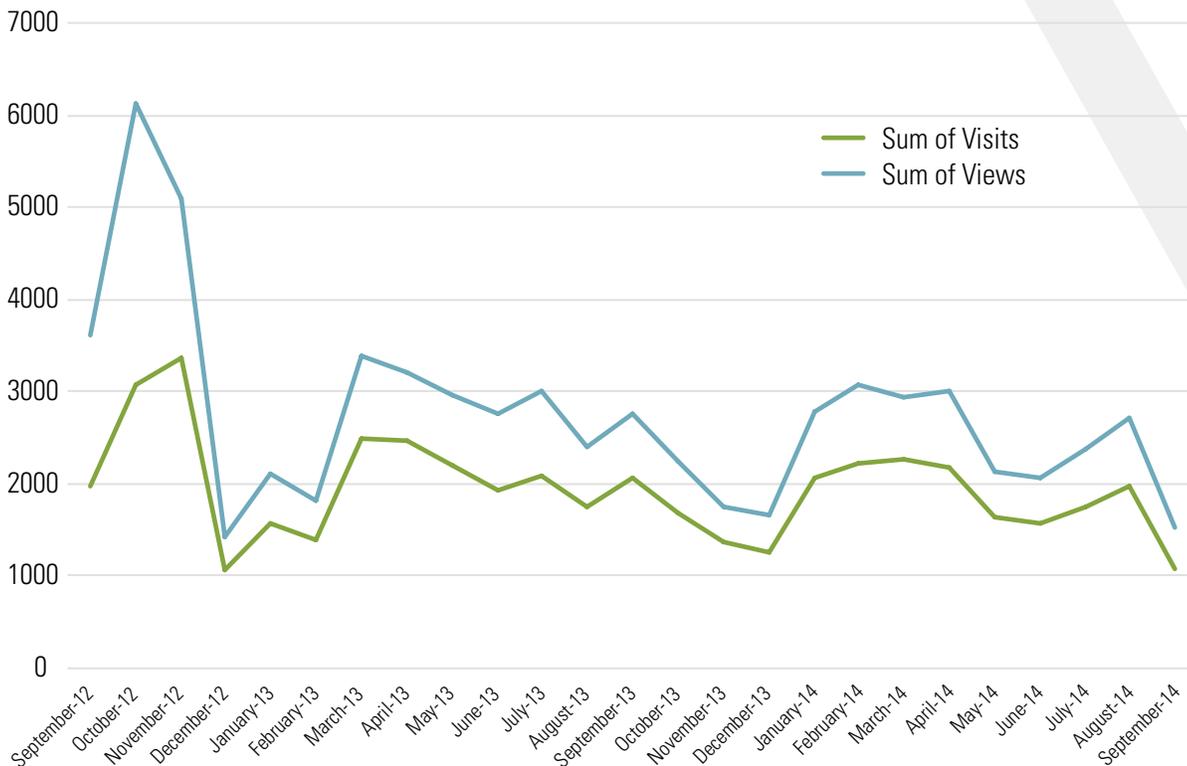
### Access for People with Disabilities – 508 Compliance

By law, and because government information should be available to everyone, Clearinghouse staff is ensuring that documents posted on the website are accessible to people with disabilities – that they are “508 compliant.” MDB had earlier removed documents that were not 508 compliant, and it continues to replace those documents with compliant versions. New documents are now made 508 compliant prior to posting.

**Clearinghouse staff is ensuring that documents posted on the web site are accessible to people with disabilities.**

### Weekly Digital Newsbrief

The Clearinghouse weekly Newsbrief is now delivered every Friday to more than 1,400 recipients, a number that has grown each year. The Newsbrief is a valuable resource for keeping readers up-to-date on the latest issues and commentary surrounding worker safety, health, and training. Providing brief summaries and links



for additional information, it features current news articles, research studies, government reports, upcoming events, and employment opportunities within the areas of emergency preparedness and response, homeland security, environmental cleanup, environmental justice, and chemical safety. With an easily digestible and eye-catching format, the Newsbrief ensures that the readers have access to information they would likely otherwise miss – delivered directly to their inbox.

### New and Updated Resource Pages

The Clearinghouse's resource pages contain a wealth of documents and resources that address emergency preparedness. This year, these pages featured additional significant updates, including the posting of:

**Disaster Worker Resiliency Training** – an instructor manual, complete with 85 PowerPoint slides, for conducting a four-hour course to help workers, volunteers, and others recognize and address the psychological stress and trauma that can result from working in disasters. (The course was developed with funding from SAMHSA.)

**Best Practices for Minority Worker Training** – a report from the MWTP, outlining best practices and guidance on undertaking successful programs to prepare and employ underserved and disadvantaged populations.

**Updated the Floods Page** – revised content of this section to reflect new information, and information needs, in the wake of the May 2014 Colorado mudslide.

### Emergency Response Worker Safety and Health Booklets

The Clearinghouse has produced several guides, focused on specific topics, to provide critical information for workers who participate in the response and cleanup of natural or manmade disasters. Some are produced in more than one language. This table shows the number of booklets that were ordered between September 15, 2013, and August 31, 2014:

Booklet Title	Number of booklets ordered
Protecting Yourself While Responding to Earthquakes	312
Safety Awareness for Responders to Flood: Protecting Yourself While Helping Others	651
Safety and Health Awareness for Oil Spill Cleanup Workers	35*
Protecting Yourself During a Dirty Bomb Response (RDD)	300
Safety Awareness for Responders to Hurricanes: Protecting Yourself While Helping Others	6,620**
Mold Clean-up and Treatment	9,769

\* Ten of these were in Vietnamese.

\*\* Of these, 285 were in Spanish and 360 were Vietnamese versions.

The Clearinghouse also sent 11,000 Removing Post-disaster Debris fact sheets to various Occupational Safety and Health Administration (OSHA) area offices at their request. Ten thousand were sent in response to the Colorado flooding in late September 2013; 500 were sent in response to the tornado in Illinois in November 2013; and 500 were sent in response to the March 2014 landslide in Washington state.

# PRIME TASK: FOUR

## ADDRESSING EMERGING ISSUES

*Develop, analyze, and compile program research products to support new training initiatives and the continuation of program efficacy measures.*



While disseminating training and technical information, important parts of the WTP's work involve evaluating how well programs are working and developing new programs that reflect emerging needs. Part of the mission is to know what works well, and how well, and to explore and analyze new initiatives and how they relate to worker safety. The last year saw significant progress in two important new areas.

### The Economic Benefits of the Minority Worker Training Program

As the MWTP approaches its 20th anniversary, the WTP commissioned a study to identify and quantify the economic benefits of the program. Going beyond anecdotal evidence, a major study will shed new light on just how beneficial the program is. How much difference does it make – for individual participants, their communities, the government, and the taxpayers?

Clearinghouse staff identified labor and environmental economists to evaluate and document the benefits of the MWTP. The lead economists are Bryan Engelhardt and Robert Baumann from the College of the Holy Cross.

The study approach was highly interactive, involving the grantees, economists, and Clearinghouse staff in the effort.

Most of the study and analysis has been completed. A draft report is now under review and should be ready for release soon. But the final report is expected to outline the financial and fiscal benefits of higher earnings, fewer injuries, lower hiring costs, less crime, higher government revenue and lower costs, improved environment, and leveraged resources and services from local organizations.

The study was undertaken to address NIEHS Strategic Goal Number 10: "Evaluate the economic

impact of policies, practices, and behaviors that reduce exposure to environmental toxicants, through prevention of disease and disabilities, and invest in [training and] research programs to test how prevention improves public health and minimizes economic burden."

### Climate Change Vulnerability Assessment

A high priority for the Obama administration has been to encourage government agencies and private sector entities to prepare for the impacts of climate change, which we are already experiencing and will only become more severe. The Clearinghouse is working on a climate change vulnerability assessment for the WTP

and its grantees. The goal of the evaluation

is to examine implications of the consequences of climate change for the WTP's mission of protecting worker safety and health and the way and type of training its grantees will provide workers.

The report, now under development, will review various climate change-related health hazards and the potential impact they have on workers. Those findings, in turn, will be used to assess current training practices and to identify gaps in those courses. It will also explore individual and community resiliency in the face of climate change challenges.

This critical study is an outgrowth of the workshop held last spring in Los Angeles, where meeting participants considered the president's executive order on climate change. It will be used and discussed during the upcoming October 2014 workshop that will focus on this issue. A report will be finalized after that meeting.

Finally, in the area of new products and areas of inquiry, it is worth mentioning again here a very important report, "Minority Worker Training Program:

Important parts of WTP's work are to evaluate how well programs are working and developing new programs that reflect emerging needs.



Guidance on How to Achieve Successes and Best Practices.” While most of the work on it was done in 2013, it was finalized this year and, as noted earlier, is now available online.

## Partnerships and Representation

Members of the Clearinghouse staff represent the Clearinghouse and the WTP in various meetings throughout the year.

Clearinghouse staff actively participated (e.g., presented, facilitated, sat on advisory boards, etc.) in the following meetings during the year:

- Tim Fields participated on calls related to the chemical plant security executive order (September 2013).
- Joy Lee participated on the National Response Team worker safety and health calls (January 2014).
- Deborah Weinstock attended the International Union of Operating Engineers advisory board meeting (September 2013).
- Weinstock presented at the American Public Health Association (APHA) conference (November 2013).
- Jonathan Rosen presented at the APHA conference (November 2013).
- Weinstock attended the International Association of Fire Fighters Instructor Development Conference and Advisory Board Meeting (December 2013).
- Weinstock participated in the Department of Health and Human Services/Centers for Disease Control and Prevention (CDC)/NIEHS Sandy meeting (January 2014).
- Weinstock attended the HAMMER Medical Surveillance subcommittee meeting, steering committee meeting, and Training Work Group meeting (March 2014).
- Rosen presented on the disaster resilience course at the American Industrial Hygiene Conference and Exposition (June 2014).
- Weinstock participated in the OSHA emergency response and preparedness stakeholder meeting (July 2014).



## PARTICIPATION



## FACILITATION



## ATTENDANCE





# APPENDIX A

## Clearinghouse Advisory Board Meeting

April 9, 2014

### Attendees:

Alex Prenzias, OAI	Kenny Oldfield, Alabama Fire College	April Bennett, NIEHS
Audrey Gotsch, Rutgers	Linda Delp, UCLA	Deborah Weinstock, National Clearinghouse
Barbara McCabe, IUOE	Mark Catlin, SEIU	Don Elisburg, National Clearinghouse
Carol Rice, Midwest Consortium	Pat Berntsen, PETE	Michael Baker, National Clearinghouse
Craig Slatin, UMass-Lowell	Patricia Aldrige, HAMMER	Joy Lee, National Clearinghouse
Doug Feil, PETE	Sanobia Brima, OAI	Betsy Eagin, National Clearinghouse
Don Ellenberger, CPWR	Tippi Reed, OAI	Dustin Russell, National Clearinghouse
Gary Gustafson, LIUNA	Chip Hughes, NIEHS	
Janelle Rios, UT	Jim Remington, NIEHS	
Javier Nicolalde, Nicolalde	Sharon Beard, NIEHS	
Jim Frederick, USW		

## Strategic Plan and Operational Matrix

### ■ Strategic Plan: Comments and Questions

- A question was raised on whether or not accreditation should be addressed in the WTP Strategic Plan. Deborah Weinstock commented that currently, not an enormous time has been invested in it, but there is the possibility of having a workshop to flesh the idea out. As the new guidelines develop, there are several worker training contractors that do not have accreditation.
- Suggestions were made to mention the Minimum Criteria document and reference the matrix. The Minimum Criteria is mentioned in the full Strategic Plan.
- Another question was raised on how emerging issues, as discussed in the technical workshop and awardee meeting, will fit into the Strategic Plan. In terms of mission priorities, several of the issues are mentioned in the plan. Nonetheless, there should be an open-ended emerging issues priority.
- Tippi Reed noted that as new populations (e.g., green infrastructure, manufacturing workers) are being addressed and more community-based training is being done, this will need to be reflected into the plan so that the Clearinghouse can support these activities. It may be necessary to broaden the language.
- There was a suggestion to change the word in priority four to say hazardous “conditions” instead of “environment” to reflect what we are doing.
- There was another suggestion to make reference to the NIEHS Strategic Plan.
- Once changes are made, the Clearinghouse will send out the draft language.

### ■ Operational Matrix: Highlights, Comments, and Questions

- Under the HDPTP, the SAMHSA mental health resilience project is ongoing and extensive discussions have been held with various stakeholders and agencies. Draft curriculum has been developed for workers or communities. It will be translated into Spanish and Vietnamese (as it is funded by the Gulf Project). It will be piloted in Louisiana.
  - Javier Nicolalde, Craig Slatin, Janelle Rios, and others have volunteered to review the curriculum.
- Also under the HDPTP, NIEHS is partnering with CDC, the Office of the Assistant Secretary for Preparedness and Response, the Institute of Medicine, and the National Library of Medicine to convene the June 12-13 Natcher meeting. This is a follow-up meeting to the previous meeting on Disaster Science Response and it is expanded to other federal agencies. The agenda will be circulated around when it is available.
- Regarding worker trainer qualifications, as it relates to the OSHA Education Centers, there may have been a miscommunication between the OSHA Training Institute and the front office. While the intention of OSHA is not to make it more difficult for worker/peer trainers, some education centers may be pushing the agenda. Don Ellenberger noted that CPWR is applying pressure through the Advisory Committee on Construction Safety and Health.
- The economic benefits report is moving forward, and is currently focused on the MWTP as a model.
- The MWTP best practices report has been published.
- The Clearinghouse is also in the beginning stages of working on a climate change vulnerability assessment, which is aimed to be completed by this summer. The assessment will look at how climate change will impact workers. It will focus on general background, new hazards by industry, identification of specific vulnerabilities, training in the era of climate change, and resilience in promotion of mental health resilience.
  - We are also looking at establishing a working group on occupational health issues, in partnership with the National Institute for Occupational Safety and Health.
  - It will be based on Paul Schulte's report, "Climate Change and Occupational Safety and Health: Establishing a Preliminary Framework." This report will be sent out to the advisory board.
- Under DOE, there may be work conducted on pulling together best practices (i.e., worker training) into a report. There has been discussion with HAMMER on conducting another DOE trainers' exchange in 2015.
- The Clearinghouse is also working to revamping the Clearinghouse website. Please submit your input to Deborah Weinstock.
- As a result of the workshop on occupational safety and health disparities, an undergraduate training module and a worker training module have been developed. Linda Delp and Craig Slatin have piloted the undergraduate module. The Clearinghouse will make the module available on the website.



### ■ Other comments:

- In regards to building relationship with Native Americans, the MWTP report has a recommendation to continue building relationships with Native Americans.
- Javier Nicolalde noted that SBIR grantees can also be very helpful in distributing training materials to other populations, as the social media platform is a very useful tool to deliver information to target populations.
- Don Elisburg strongly suggested reading the matrix. The essence of what is in the matrix is important to the grantees because it is what the WTP program and Clearinghouse staff are doing. This is a task list/production list/priority list of what this agency is going to be doing this year in terms of activities, time spent, and resources spent, and many of them are not unrelated. They are all related to the grantee program, and what and how things are expected of the grantees.

### Economic Impact Study

- Economists have been trying to look at the economic impact of the MWTP. The Clearinghouse asked MWTP grantees to share data regarding their program. With this data, a template was pulled to show how grantees have leveraged funds, job data tracked, and a health and safety survey. We only have preliminary data and once the data collection is completed, the Clearinghouse will share it.
- A question was asked on what the plan is once the data is collected and shared, and how the research team will be used moving forward. In moving forward, the Clearinghouse and the WTP will need to think strategically on which will be the next program to be analyzed. The same research team will continue to be working on the study. Chip Hughes added that the economic impact study will demonstrate how different grantees and consortiums operate. The idea is to have economic data that describes quantitatively how funds are leveraged in this program.
- There was a concern that this study will be difficult to analyze for the HWWTP, as programs that do open enrollment training will have a hard time tracking the data and the impact will be hard to quantify. For instance, impacts of the refresher courses will be hard to quantify. In terms of tracking jobs, trainees enrolled through universities will be hard to track because they already have jobs. This is also a concern when calculating the impacts of the “what ifs” (i.e., instances where employers do not want to let workers get training). Economic benefits should show how workers are safe.
- The quantitative modeling study is a response to the political question. Some attendees are not convinced that political decisions are made by data. We should also try to retain personal stories. It would be helpful to receive guidance on how to collect stories in a systematic manner. It was suggested to collect data in a consistent manner, such as asking students for stories after every class.

### ■ Sandy Project

- • The project has been successful with the help of the grantees.

### ■ Future Workshops

- Practical efforts at job creation: This workshop would focus on how workers can get jobs. Most of the time, when the job opening is announced publically, the opening is usually closed. If you are looking at job development, you have to know who knows about the projects when they are being thought about. For instance, Beverly Wright knows how to infiltrate the infrastructure in New Orleans and what things might be happening to see if they want to participate. Sharon Beard noted that an example is the disaster response/Department of Housing and Urban Development grants. Tippi Reed added that along with job creation, we should explore better uses of social media for recruitment and tracking.
- It was mentioned that we should see how much public schools know about the resources that the Clearinghouse offers.
- In terms of accreditation and certification, Doug Feil mentioned quality control plans may merit a portion of a workshop.
- Another recommendation for a workshop topic is to define what would a classroom of the future would look like (e-learning), and how these functionalities can be applied to training.
- Another possible topic is the opportunity for training groups to enter pre-employment training. Job readiness is worth a conversation, as this group can serve as a vehicle to conduct the training.



## APPENDIX B

### Section 508 Annual Report

HHS Requestor:

Date: October 14, 2014

Item(s) Name: Worker Training Program Clearinghouse website

Version:

Vendor: MDB, Inc.

Vendor Contact: Deborah Weinstock

#### Section 1194.21 Software Applications and Operating Systems

Refer to <http://www.access-board.gov/sec508/guide/1194.21.htm> for details on the criteria listed below.

Criteria	Supporting Features	Remarks and Explanations
(a) When software is designed to run on a system that has a keyboard, Item(s) functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.	Supports	Pages do follow a consistent tab order.
(b) Applications shall not disrupt or disable activated features of other Item(s) that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the Item(s) developer.	Not applicable	The application does not contain any code that disrupts or disables any accessibility features.
(c) A well-defined onscreen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.	Supports	The Web browser built-in screen and form field focus indications are utilized.
(d) Sufficient information about a user interface element including the identity, operation, and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.	Supports	All images and buttons contain alternative text for images and buttons.
(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	Not applicable	Bitmap images are not used in the application.
(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.	Supports	The application uses operating system functions for displaying text. The program does not use unique schemes for writing text on the screen.

Section 1194.21 Software Applications and Operating Systems		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.21.htm">http://www.access-board.gov/sec508/guide/1194.21.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(g) Applications shall not override user-selected contrast and color selections and other individual display attributes.	Supports	The application does not change any display attributes.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Not applicable	The application does not use animation.
(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Supports	All use of color has enough contrast to allow the user to see all text.
(j) When an Item(s) permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.	Not applicable	The application does not permit the user to adjust color and contrast settings.
(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2Hz and lower than 55Hz.	Supports	The application does not contain any blinking or flashing text or objects.
(l) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Supports	All input fields and buttons use tags and labels. Alternative text is available for images/buttons.

Section 1194.22 Web-Based Internet Information and Applications		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.22.htm">http://www.access-board.gov/sec508/guide/1194.22.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) A text equivalent for every non-text element shall be provided (for example, via "alt," "longdesc," or in element content).	Supports	All non-text elements have alternative text.
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	Supports	All multimedia presentations contain text-based closed captioning text that is synchronized with the media.
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example, from context or markup.	Not applicable	No information is conveyed with color.
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Supports	The pages are formatted such that style sheets are not required to properly render the content.
(e) Redundant text links shall be provided for each active region of a server-side image map.	Not applicable	The application does not use any server-side image maps.



Section 1194.22 Web-Based Internet Information and Applications Refer to <a href="http://www.access-board.gov/sec508/guide/1194.22.htm">http://www.access-board.gov/sec508/guide/1194.22.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.	Not applicable	The application does not use any client-side image maps.
(g) Row and column headers shall be identified for data tables.	Supports	All data tables incorporate row and column headers.
(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Not applicable	Tables in this application do not have two or more logical levels of row or column headers.
(i) Frames shall be titled with text that facilitates frame identification and navigation.	Not applicable	Frames are not used in this application.
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2Hz and lower than 55Hz.	Supports	All pages were developed to avoid screen flicker. Elements such as <blink> and <marquee> were not used.
(k) A text-only page, with equivalent information or functionality, shall be provided to make a Web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	Supports	All pages can be displayed as text-only. No content is displayed in images, buttons, or JavaScript that is not also displayed in text.
(l) When pages utilize scripting languages to display content or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.	Supports	All JavaScript elements can be read by Assistive Technology.
(m) When a Web page requires that an applet, plug-in, or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).	Not applicable	The application does not use any applets, plug-ins, or other applications to interpret page content.
(n) When electronic forms are designed to be completed online, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Supports	Input fields and buttons contain id tags and labels. There is alternate text for images (buttons). A screen reader can read the buttons or the input fields.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Supports	The application uses the NIEHS layout which provides a means to skip repetitive navigation links.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Does not support	The application does not alert the user before the application times out. The user is alerted after the session has timed out.

Section 1194.23 Telecommunications Item(s) Refer to <a href="http://www.access-board.gov/sec508/guide/1194.23.htm">http://www.access-board.gov/sec508/guide/1194.23.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) Telecommunications Item(s) or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.		
(b) Telecommunications Item(s) that include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.		
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.		
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.		
(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.		
(f) For transmitted voice signals, telecommunications Item(s) shall provide a gain adjustable up to a minimum of 20dB. For incremental volume control, at least one intermediate step of 12dB of gain shall be provided.		
(g) If the telecommunications Item(s) allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.		
(h) Where a telecommunications Item(s) delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.		
(i) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications Item(s).		
(j) Item(s) that transmit or conduct information or communication shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats, or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.		



Section 1194.23 Telecommunications Item(s)		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.23.htm">http://www.access-board.gov/sec508/guide/1194.23.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(k)(1) Item(s) that have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.		
(k)(2) Item(s) which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 pounds (22.2N) maximum.		
(k)(3) Item(s) that have mechanically operated controls or keys shall comply with the following: If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.		
(k)(4) Item(s) which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.		

Section 1194.24 Video and Multimedia Item(s)		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.24.htm">http://www.access-board.gov/sec508/guide/1194.24.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, wide-screen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.	Not applicable	The system does not require the use of analog television.
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.	Not applicable	The system does not require the use of analog television.
(c) All training and informational video and multimedia Item(s) that support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content shall be open or closed captioned.	Supports	All videos stored on the application have appropriate caption files.

Section 1194.24 Video and Multimedia Item(s)		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.24.htm">http://www.access-board.gov/sec508/guide/1194.24.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(d) All training and informational video and multimedia Item(s) which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content shall be audio described.	Supports	All videos stored on the application have appropriate audio caption files.
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	Supports	All videos stored on the application have appropriate caption files that can be activated by the user if needed or desired.

Section 1194.25 Self-Contained, Closed Item(s)		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.25.htm">http://www.access-board.gov/sec508/guide/1194.25.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) Self-contained Item(s) shall be usable by people with disabilities without requiring an end-user to attach Assistive Technology to the Item(s). Personal headsets for private listening are not Assistive Technology.		
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.		
(c) Where a Item(s) utilizes touch screens or contact-sensitive controls, an input method shall be provided that complies with §1194.23 (k)(1) through (4).		
(d) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.		
(e) When Item(s) provide auditory output, the audio signal shall be provided at a standard signal level through an industry-standard connector that will allow for private listening. The Item(s) must provide the ability to interrupt, pause, and restart the audio at any time.		
(f) When Item(s) deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45dB, a volume gain of at least 20dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.		



Section 1194.25 Self-Contained, Closed Item(s) Refer to <a href="http://www.access-board.gov/sec508/guide/1194.25.htm">http://www.access-board.gov/sec508/guide/1194.25.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.		
(h) When a Item(s) permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.		
(i) Item(s) shall be designed to avoid causing the screen to flicker with a frequency greater than 2Hz and lower than 55Hz.		
(j)(1) Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the Item(s) within the 48- inch length on Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls.		
(j)(2) Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.		
(j)(3) Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is more than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.		
(j)(4) Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.		

Section 1194.26 Desktop and Portable Computers		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.26.htm">http://www.access-board.gov/sec508/guide/1194.26.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) - (4).		
(b) If a Item(s) utilizes touch screens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) - (4).		
(c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.		
(d) Where provided, at least one of each type of expansion slot, port, and connector shall comply with publicly available industry standards.		

Section 1194.31 Functional Performance Criteria		
Criteria	Supporting Features	Remarks and Explanations
(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.	Supports	Radio buttons, check boxes, and submit buttons are labeled.
(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	Supports	The currently supported browsers and NIEHS styles allow users to magnify the screen.
(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided.	Not applicable	The application does not require user hearing.
(d) Where audio information is important for the use of an Item(s), at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	Not applicable	Audio information is not used in this application.
(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	Not applicable	The application does not require user speech.
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	Does not support	A mouse or keyboard is needed to select Radio buttons, check boxes, and submit buttons.



Section 1194.41 Information, Documentation, and Support		
Criteria	Supporting Features	Remarks and Explanations
(a) Item(s) support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge.	Not applicable	The website does not provide support documentation to the end user.
(b) End-users shall have access to a description of the accessibility and compatibility features of Item(s) in alternate formats or alternate methods upon request, at no additional charge.	Supports	Telephone numbers and email addresses for user support and accessibility and compatibility information are provided.
(c) Support services for Item(s) shall accommodate the communication needs of end-users with disabilities.	Supports	All support services, i.e. phone and email, can accommodate the communication needs of the end user through common assistive technologies such as phone relay services, screen magnification or screen readers.





# APPENDIX C

## Section 508 Annual Report

HHS Requestor:

Date: October 13, 2014

Item(s) Name: Worker Education and Training  
Curricula Information and Data Management System  
(WETCIS)

Version:

Vendor: MDB, Inc.

Vendor Contact: Deborah Weinstock

Section 1194.21 Software Applications and Operating Systems		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.21.htm">http://www.access-board.gov/sec508/guide/1194.21.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) When software is designed to run on a system that has a keyboard, Item(s) functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.	Supports	Pages follow a consistent tab order.
(b) Applications shall not disrupt or disable activated features of other Item(s) that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the Item(s) developer.	Not applicable	The application does not contain any code that disrupts or disables any accessibility features.
(c) A well-defined onscreen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.	Supports	Current focus is indicated on-screen. Focus indicator moves among the interactive interface elements as the input focus changes.
(d) Sufficient information about a user interface element including the identity, operation, and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.	Supports	All images and buttons have descriptive alternative text.
(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	Not applicable	Bitmap images are not used in the application.

Section 1194.21 Software Applications and Operating Systems		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.21.htm">http://www.access-board.gov/sec508/guide/1194.21.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.	Supports	The application uses operating system functions for displaying text. The program does not use unique schemes for writing text on the screen.
(g) Applications shall not override user-selected contrast and color selections and other individual display attributes.	Supports	The application does not change any display attributes.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Not applicable	The application does not use animation.
(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Supports	All use of color has enough contrast to allow the user to see all text.
(j) When an Item(s) permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.	Not applicable	The application does not permit the user to adjust color and contrast settings.
(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2Hz and lower than 55Hz.	Supports	The application does not use flashing or blinking.
(l) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Supports	All input fields and buttons have associated tags and labels. Alternative text is available for all images/buttons.

Section 1194.22 Web-Based Internet Information and Applications		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.22.htm">http://www.access-board.gov/sec508/guide/1194.22.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) A text equivalent for every non-text element shall be provided (for example, via "alt," "longdesc," or in element content).	Supports	All non-text elements have appropriate descriptive alternative text.
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	Not applicable	The application does not use any multimedia presentations.
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example, from context or markup.	Supports	No information is conveyed with color.



Section 1194.22 Web-Based Internet Information and Applications		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.22.htm">http://www.access-board.gov/sec508/guide/1194.22.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Supports	The pages are formatted such that style sheets are not required to properly render the content.
(e) Redundant text links shall be provided for each active region of a server-side image map.	Not applicable	The application does not use any server-side image maps.
(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.	Not applicable	The application does not use any client-side image maps.
(g) Row and column headers shall be identified for data tables.	Supports	All data tables use row and column headers.
(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Not applicable	Tables in this application do not have two or more logical levels of row or column headers.
(i) Frames shall be titled with text that facilitates frame identification and navigation.	Supports	All frames in the application are titled with text that identifies the frame and facilitates navigation.
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2Hz and lower than 55Hz.	Supports	All pages were developed to avoid screen flicker. Elements such as <blink> and <marquee> were not used.
(k) A text-only page, with equivalent information or functionality, shall be provided to make a Web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	Not applicable	A text-only page is not necessary since all pages are in compliance.
(l) When pages utilize scripting languages to display content or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.	Supports	All JavaScript elements can be read by Assistive Technology.
(m) When a Web page requires that an applet, plug-in, or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).	Not applicable	The application does not use any applets, plug-ins or other applications to interpret page content.

Section 1194.22 Web-Based Internet Information and Applications		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.22.htm">http://www.access-board.gov/sec508/guide/1194.22.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(n) When electronic forms are designed to be completed online, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Supports	All input fields and buttons have associated tags and labels to allow users using assistive technology to access all information, field elements, and functionality required for completion and submission of the form, including all directions and cues.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Supports	Hidden text and links, readable by screen readers, are available to allow a user using assistive technology to skip repetitive navigation links.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Does not support	The application does not alert the user before the application times out. The user is alerted after the session has timed out.

Section 1194.23 Telecommunications Item(s)		
Refer to <a href="http://www.access-board.gov/sec508/guide/1194.23.htm">http://www.access-board.gov/sec508/guide/1194.23.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) Telecommunications Item(s) or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.		
(b) Telecommunications Item(s) that include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.		
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.		
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.		



**Section 1194.23 Telecommunications Item(s)**

Refer to <http://www.access-board.gov/sec508/guide/1194.23.htm> for details on the criteria listed below.

Criteria	Supporting Features	Remarks and Explanations
(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.		
(f) For transmitted voice signals, telecommunications Item(s) shall provide a gain adjustable up to a minimum of 20dB. For incremental volume control, at least one intermediate step of 12dB of gain shall be provided.		
(g) If the telecommunications Item(s) allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.		
(h) Where a telecommunications Item(s) delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.		
(i) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications Item(s).		
(j) Item(s) that transmit or conduct information or communication shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats, or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.		
(k)(1) Item(s) that have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.		
(k)(2) Item(s) which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 pounds (22.2N) maximum.		
(k)(3) Item(s) that have mechanically operated controls or keys shall comply with the following: If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.		
(k)(4) Item(s) which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.		

Section 1194.24 Video and Multimedia Item(s) Refer to <a href="http://www.access-board.gov/sec508/guide/1194.24.htm">http://www.access-board.gov/sec508/guide/1194.24.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, wide-screen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.		
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.		
(c) All training and informational video and multimedia Item(s) that support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content shall be open or closed captioned.		
(d) All training and informational video and multimedia Item(s) which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content shall be audio described.		
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.		

Section 1194.25 Self-Contained, Closed Item(s) Refer to <a href="http://www.access-board.gov/sec508/guide/1194.25.htm">http://www.access-board.gov/sec508/guide/1194.25.htm</a> for details on the criteria listed below.		
Criteria	Supporting Features	Remarks and Explanations
(a) Self-contained Item(s) shall be usable by people with disabilities without requiring an end-user to attach Assistive Technology to the Item(s). Personal headsets for private listening are not Assistive Technology.		
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.		
(c) Where a Item(s) utilizes touch screens or contact-sensitive controls, an input method shall be provided that complies with §1194.23 (k)(1) through (4).		



**Section 1194.25 Self-Contained, Closed Item(s)**

Refer to <http://www.access-board.gov/sec508/guide/1194.25.htm> for details on the criteria listed below.

Criteria	Supporting Features	Remarks and Explanations
(d) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.		
(e) When Item(s) provide auditory output, the audio signal shall be provided at a standard signal level through an industry-standard connector that will allow for private listening. The Item(s) must provide the ability to interrupt, pause, and restart the audio at any time.		
(f) When Item(s) deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45dB, a volume gain of at least 20dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.		
(g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.		
(h) When an Item(s) permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.		
(i) Item(s) shall be designed to avoid causing the screen to flicker with a frequency greater than 2Hz and lower than 55Hz.		
(j)(1) Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the Item(s) within the 48- inch length on Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls.		
(j)(2) Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.		
(j)(3) Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is more than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.		

### Section 1194.25 Self-Contained, Closed Item(s)

Refer to <http://www.access-board.gov/sec508/guide/1194.25.htm> for details on the criteria listed below.

Criteria	Supporting Features	Remarks and Explanations
(j)(4) Item(s) which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.		

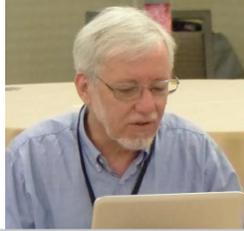
### Section 1194.26 Desktop and Portable Computers

Refer to <http://www.access-board.gov/sec508/guide/1194.26.htm> for details on the criteria listed below.

Criteria	Supporting Features	Remarks and Explanations
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) - (4).		
(b) If a Item(s) utilizes touch screens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) - (4).		
(c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.		
(d) Where provided, at least one of each type of expansion slot, port, and connector shall comply with publicly available industry standards.		

### Section 1194.31 Functional Performance Criteria

Criteria	Supporting Features	Remarks and Explanations
(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.	Supports	All information can be retrieved because input fields and buttons have associated tags and labels. Alternative text is available for all images.
(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	Supports	The application provides support for assistive technology through the use of tags, labels, and alternative text.
(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided.	Not applicable	The application does not require user hearing.



Section 1194.31 Functional Performance Criteria		
Criteria	Supporting Features	Remarks and Explanations
(d) Where audio information is important for the use of an Item(s), at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	Not Applicable	Audio information is not used in this application.
(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	Not Applicable	The application does not require user speech.
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	Does not support.	The application does require the use of a keyboard for data entry and data submission.

Section 1194.41 Information, Documentation, and Support		
Criteria	Supporting Features	Remarks and Explanations
(a) Item(s) support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge.	Supports	Online, context-sensitive help exists and the icons to display the help have alternate text to identify their purpose. Telephone numbers and email addresses for user support are also provided.
(b) End-users shall have access to a description of the accessibility and compatibility features of Item(s) in alternate formats or alternate methods upon request, at no additional charge.	Supports	Telephone numbers and email addresses for user support and accessibility and compatibility information are provided.
(c) Support services for Item(s) shall accommodate the communication needs of end-users with disabilities.	Supports	All support services, i.e. phone and email, can accommodate the communication needs of the end user through common assistive technologies such as phone relay services, screen magnification or screen readers.



National Institute of  
Environmental Health Sciences