



National Institute of  
Environmental Health Sciences

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# Final Contract Report

September 2010–September 2015

for the National Clearinghouse  
for Worker Safety and Health Training

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## 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/WTP>

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# > Overview

*This final report for MDB, Inc.'s contract describes the broad range of mission support, communication and technical support services provided to the National Institute for Environmental Health Sciences' (NIEHS) Worker Training Program<sup>1</sup> (WTP). This report covers the work completed during the entire five-year contract year, beginning September 15, 2010 and ending on September 14, 2015.*

During the last five years, MDB has developed and updated multiple awareness-level health and safety training materials for emergency response workers, improved the structure and functionality of the Clearinghouse website, facilitated communications between emergency response agencies and organizations, and improved the quality of the technical meetings and generated substantive, peer reviewed reports. The past five years have been an exciting time for worker safety and health issues. MDB's support of the NIEHS WTP National Clearinghouse and WTP Awardees has increased awareness of and hopefully made a difference in the health and safety of American workers.

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<sup>1</sup> The Environmental Career Worker Training Program (ECWTP), was known as the Minority Worker Training Program (MWTP) until 2014, The Worker Education and Training Program (WETP) name was changed in 2014 to the Worker Training Program (WTP). This report has been updated to reflect present names and acronyms as appropriate.

# Task 1

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





## Monthly Meetings

To ensure efficient operations of the Clearinghouse, Ms. Deborah Weinstock made monthly trips to Research Triangle Park, NC to meet with the Worker Education and Training Branch (WETB) staff to discuss past, current, and future contract activities, as well as examine remaining budget allocations. Each month, Ms. Weinstock disseminated a new report, which included a budget spreadsheet and a summary of contract tasks to the WETB. This form of reporting ensures accountability for the project, while introducing a necessary degree of flexibility when faced with changing priorities. Other Clearinghouse team members attended meetings or joined via teleconference as needed. The meetings provide an opportunity to set priorities and move forward on specific projects.

## Health and Safety Library (HASL) and the Curricula Catalog

The HASL, the backbone of the Clearinghouse website that houses all documents, contains a vast collection of diverse, Section 508-compliant materials related to worker safety and health. The Clearinghouse staff collects, catalogs, and uploads new materials to the HASL to ensure that it remains a valuable resource for WTP awardees, other members of the training community, and the general public. The public can also access curricular materials produced by WTP awardees via the Curricula Catalog on the Clearinghouse website.

### **Between September 1, 2012<sup>2</sup> and September 14, 2015**

- 102,860 files were downloaded from HASL
- 18,410 files were downloaded from the Curricula Catalog

### **Between September 15, 2010 and September 14, 2015**

- 379 new curricular files were uploaded by awardees
- 242 courses were modified
- 124 new courses were added

## WTP Annual Planning Meeting

Annual Clearinghouse planning meetings were held to allow for Clearinghouse and WETB staff to plan annual projects and discuss current and future issues, events, deliverables, metrics, and partnerships within the various program areas: Hazardous Waste Worker Training Program (HWWTP), Environmental Career Worker Training Program (ECWTP), Department of Energy (DOE)/NIEHS Nuclear Worker Training Program, Small Business Innovative Research (SBIR), and Hazmat Disaster Preparedness Training Program (HDPTP). Beginning in 2011, the Office of the Director, Bethesda (ODB), which oversees programs that

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<sup>2</sup> Data on downloads unavailable prior to 2012

intersect with WTP efforts, attended retreats to ensure continuity of planning between programs. Planning meetings served as an opportunity to prioritize activities and operational plans. In 2014, a new operational matrix was created to allow alignment of activities with the WTP logic model, as well as to provide clarity in the role of WTP staff, the Clearinghouse and WTP awardees.

Each meeting agenda was shared prior to meetings and topics included upcoming events, ongoing responses and activities, future areas of growth and discussion of potential workshop topics. Detailed minutes from each meeting were taken and distributed to attendees with follow up actions and comments.

**NIEHS WTP FY 2015 Operational Matrix**

Activity	WTP	Clearinghouse	Awardees	OOB
<b>Goal 1: Improved Safety Culture in the Workplaces</b>				
<b>1a. Increased Worker Engagement</b>				
• Ensure worker home concept surveys				
• ECHO/safety training				
<b>1b. Trained Workers Who Can Identify Workplace Hazards</b>				
• Develop/distribute training preparedness guide to grantees for feedback and finalize				
• Encourage awardees to develop traino training modules				
• Develop training modules based on the climate vulnerability assessment				
<b>1c. Trained workers who understand how to take action</b>				
<b>• OOOE TRS</b>				
• HORT webinars				
• Hurricane Sandy Meetings				
• Integrate disaster resilience materials into training				
• NRT Training Subcommittee				
• NRT Worker Safety & Health Subcommittee				
• Get chemical workshop (Portland, OR) and using minority safer technologies				
• Complete care provider component of CAMHS mental health resilience project				
<b>1d. Safer company practices and policies</b>				
<b>Goal 2: Reduced Inequality and Mortality</b>				
<b>2a. Improved Policies and Regulations/ Improved enforcement of health and safety practice/policy/regulation</b>				
• Engage with OSHA/ER officials regarding chemical plant security, climate change				
<b>2b. Updated policy and regulation</b>				
• CONFRS/OOE				
• EPA				
• OSHA				
<b>Goal 3: Reduced Occupational Health (Injury/Illness/Infectious) and Enhancement of Communities</b>				
<b>3a. Increased job opportunities/increased links between workers, workplaces, and communities</b>				
• Continued collaboration with local/state and private contractors				
• Continued partnership with CAMHS				
• Have MWT grantees pilot OHD curricula				
• OSHA/NIOSH disaster relationships				
• Partner with DOE				
• Support Good Jobs Green Jobs Conference				
• NIOSH/OOE collaboration on Logos Management pilot/training				
<b>3b. Increased grants knowledge base</b>				
<b>3c. Improved capacities to effectively train, evaluate, communicate, collaborate, build/sustain partnerships, and accomplish WTP goals</b>				
• Develop and implement communication plan				
• Complete data in progress reports and DMS for consistency				
• Continue to use and modify template of the evaluation tool (HORT)				
• Continued outreach to state and local governments				
• Economic benefits pilot				
• Add criteria to receive current/other proposals to increase grant success and				
• Finalize the Education and Training modules for HRG EJ				
• HRG Training WIG				
• Integrate the economic value of partnerships as a theme moving forward				
• Market EBR program to encourage more applications				
• NRT Training Subcommittee				
• NRT Worker Safety and Health Subcommittee				
• Occupational and Environmental Health Disparities WIG				
• Post on website worker training modules on OHD once they are finalized				
• Quantify minority population in non-MWT programs				
• Update evaluation profiles				
• Use HRG strategic plan to engage with Native Americans and Hispanics				
<b>Goal 4: A Sustainable Program (based in Science) that Incorporates Current Technologies and Promotes Innovation in All Aspects of its Mission</b>				
<b>4a. Appropriate levels of funding</b>				
• Create map of places where WTP has responded				
• Track DOE success stories				
<b>4b. Use of current technologies in training</b>				
• Get data on which grantees are using what technologies				
<b>4c. Promotion of innovation through research and grants</b>				
<b>4d. Science-based activities</b>				

Red = WTP; Green = ECHW; Blue = HDP; Orange = OOE; Light Blue = SER

## Clearinghouse Advisory Board Meetings

- May 3, 2011 in Mobile, AL
- March 27, 2012 in Ft. Lauderdale, FL
- June 10, 2013 in Washington DC
- April 9, 2014 in Los Angeles, CA
- February 25, 2015 in Portland, OR

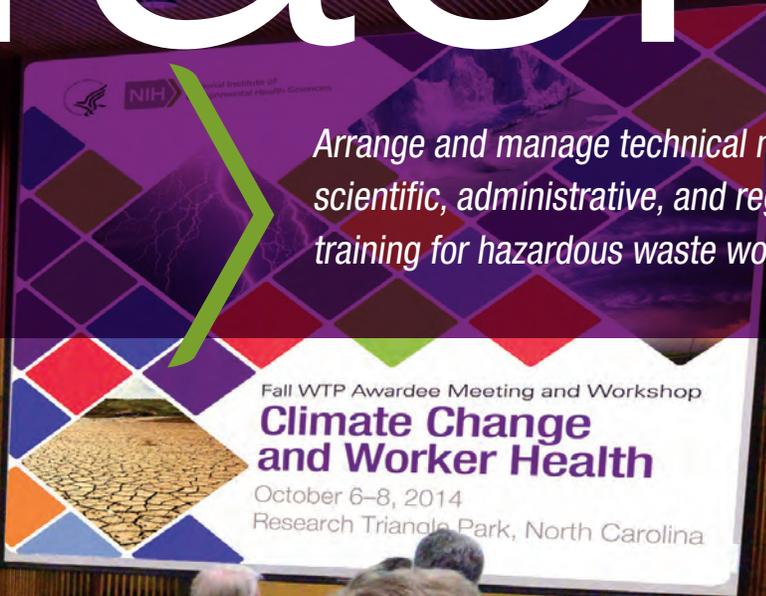
## Clearinghouse Advisory Board

The Clearinghouse Advisory Board was convened prior to each Spring Awardee meeting and workshop. The Board is composed of awardee Principal Investigators<sup>3</sup> who advise the Clearinghouse on activities, interests and updates to the WTP strategic plan.

<sup>3</sup> For a complete list of attendees and meeting notes, please refer to Annual Reports.

# Task 2

*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*



The National Clearinghouse organized and managed numerous technical meetings and workshops over the duration of the contract. In most of the meetings mentioned below, Clearinghouse staff arranged for hotel accommodations and meeting rooms for the participants of the meetings and workshops, as well as played a major role in developing workshop and meeting agendas and sessions. Clearinghouse staff also took detailed notes at each meeting and developed workshop reports. Past meeting agendas and reports are available at: <http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/>

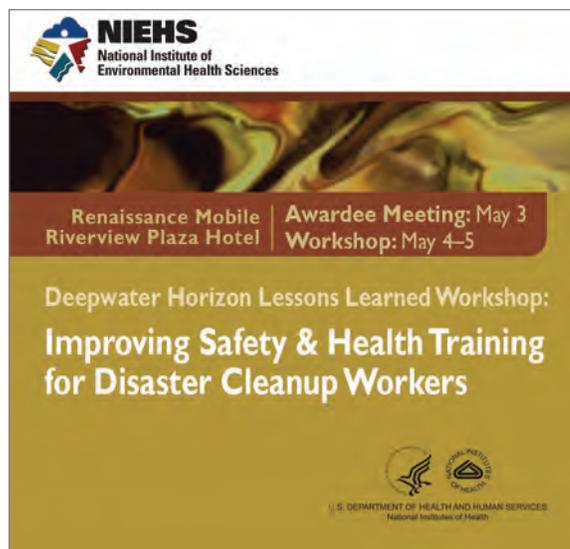


### NIEHS WTP Fall 2010 Workshop: Back to Basics

October 25-26, 2010 • Research Triangle Park, North Carolina

The National Clearinghouse coordinated and assisted in the facilitation of the NIEHS WTP Fall 2010 Awardee Meeting and Workshop: Back to Basics held on October 25-26, 2010 on the NIEHS Main Campus in Research Triangle Park, NC. The conference brought together over 100 NIEHS and WTP awardee representatives and interested parties to review the current issues relating to the various components of the newly awarded cooperative agreements. Issues covered included: basic hazmat training and how the programs have grown and developed since their inception; hazmat and disaster response update to discuss lessons learned from the Gulf oil spill and how they relate to what we've learned about training from previous disasters; environmental remediation and the green jobs issues—what do we really expect from these

Stimulus Programs; environmental training and Environmental Justice-- expectations and current issues; and the direction of the DOE program given the series of collaboration training meetings that have been held around the complex. The Awardee meeting took place on October 25 and the technical workshop was held on October 25-26, 2010. Conference presentations can be found at: [http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2010/fall\\_meeting/index.cfm](http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2010/fall_meeting/index.cfm). Clearinghouse staff played a critical role in shaping the agenda, developing workshop sessions, and preparing panelists for the workshop and meeting. During the Workshop, Clearinghouse staff, Joy Lee gave a presentation on the *Accomplishments under the American Recovery and Reinvestment Act Funding* report and Tim Fields, gave a presentation on the *Environmental Justice and Jobs Training* report.



### NIEHS WTP Spring 2011 Awardee Meeting and Workshop: Deepwater Horizon Lessons Learned Workshop: Improving Safety and Health Training for Disaster Cleanup Workers May 3-5, 2011 • Mobile, Alabama

The National Clearinghouse coordinated and assisted in the facilitation of the NIEHS WTP Spring 2011 Awardee Meeting and Workshop: Deepwater

Horizon Lessons Learned Workshop: Improving Safety and Health Training for Disaster Cleanup Workers in Mobile, AL from May 3-5, 2011. This meeting examined the training-related Deepwater Horizon Oil response activities (as seen through the eyes of the Worker Training Program, WTP awardees, federal partners, community-based organizations, workers, and other stakeholders) and discussed elements of pre-incident and deployment-phase training for support personnel performing cleanup work. In addition, policies were explored to best ensure that workers receive training (in a language and a literacy level they understand) before being deployed to work.

Conference presentations, workshop proceedings and the summary report can be found at: [http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2011/spring\\_meeting/index.cfm](http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2011/spring_meeting/index.cfm)



### 2011 Environmental Justice Conference: One Community—One Environment August 23-26, 2011 • Detroit, Michigan

The National Clearinghouse provided assistance in the facilitation of the 2011 Environmental Justice

Conference: One Community – One Environment, held on August 23-26, 2011 in Detroit, Michigan. The conference sought to explore models for effective community engagement and capacity building, strategies for addressing pollution sources that impact EJ communities, and environmental workforce development training and job creation. The Clearinghouse provided support to the Environmental Workforce Development and Job Creation track. Tim Fields was a member of the

conference planning committee and played a role in the development of the agenda for the Environmental Workforce and Development and Job Creation track. Mr. Fields also gave a short presentation on the Environmental Justice and Jobs Training report. Clearinghouse staff also provided assistance in the abstract selection process for the poster session and represented the Clearinghouse at the Eco Café during the conference.



### WTP Fall 2011 Awardee Meeting and Conference: Eliminating Health and Safety Disparities at Work September 13-15, 2011 • Chicago, Illinois

The National Clearinghouse coordinated and assisted in the facilitation of the NIEHS WTP Fall 2011 Awardee Meeting and Conference: Eliminating Health and Safety Disparities at Work. The meeting, sponsored by National Institute for Occupational Safety and Health (NIOSH) and co-sponsored by NIEHS, Occupational Safety and Health Administration (OSHA), and Environmental Protection Agency (EPA), sought to understand the social, cultural, and economic factors that create and perpetuate occupational health and safety disparities. It examined the major research accomplishments and gaps related to the identification of social, cultural, and economic factors that create occupational health disparities. The conference brought together representatives from multiple disciplines and perspectives to understand the social, cultural, and economic

factors that create and perpetuate occupational health and safety disparities. The conference was built around five white papers:

- Approaches to Education and Training;
- Work Organization and Job Insecurity;
- Workplace Injustice: Discrimination, Abuse, and Harassment;
- Developing an Integrated Approach to the Health of the Low-Income Workforce; and
- Effects of Social, Economic, and Labor Policies on Occupational Health.

Deborah Weinstock coauthored the white paper on effective and promising solutions to meeting the unique challenges of conducting education and training with populations that experience occupational health disparities. Discussion focused on identifying and sharing promising practices for eliminating disparities through innovative intervention programs.

Conference presentations, workshop proceedings and the summary report can be found at: [http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2011/fall\\_meeting/index.cfm](http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2011/fall_meeting/index.cfm)

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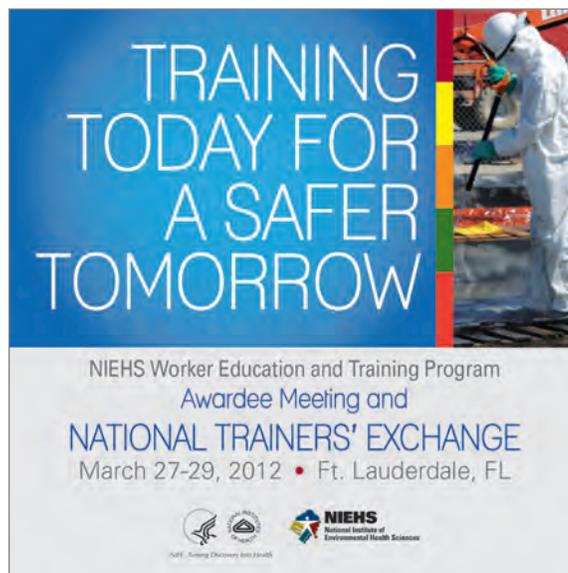
## 2012 WTP Awardee Meeting and National Trainers' Exchange

March 27-29 2012 • Ft. Lauderdale, Florida

The sixth NIEHS WTP National Trainers' Exchange: Training Today for a Safer Tomorrow was held March 27-29, 2012, in Fort Lauderdale, FL.

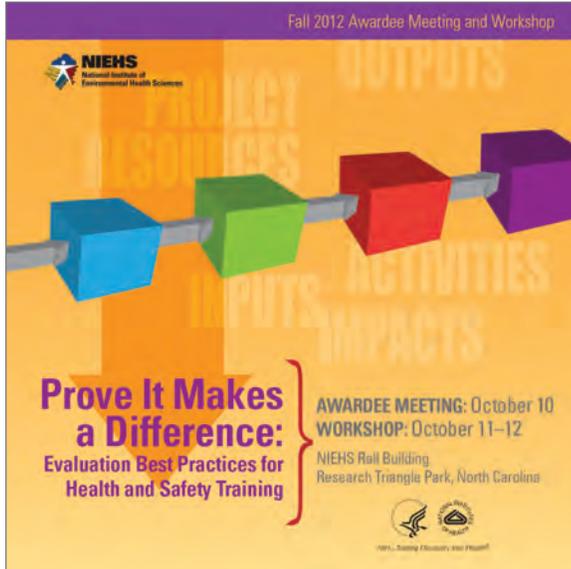
Held five times since 1994, the National Trainers' Exchange (NT) brings together trainers from all National Institute of Environmental Health Sciences (NIEHS) Worker and Training Program (WTP) hazardous waste training programs to meet one another and exchange ideas about how to make their training more effective and empowering. In addition to exchanging training ideas and methods, participants also are able to improve training skills and meet with others to discuss issues and challenges. The 2012 NT served as an opportunity for 200+ trainers from the NIEHS Worker Training Programs to share and exchange best practices

and techniques in health and safety training with other trainers. Trainers from different awardee organizations presented in 56 workshops. The Awardee meeting took place on March 27, 2012.



Conference presentations, workshop proceedings and the summary report can be found at: [http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2012/WTP\\_2012\\_NTEDOE/index.cfm](http://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2012/WTP_2012_NTEDOE/index.cfm)

An eFactor article written by Clearinghouse staff member Ryan Campbell on the Trainers' Exchange can be found at: <http://www.niehs.nih.gov/news/newsletter/2012/5/spotlight-WTP/index.htm>.



**Prove it Makes a Difference: Evaluation Best Practices for Health and Safety Training**  
**October 10-12, 2012 • Research Triangle Park, North Carolina**

The Worker Training Program’s (WTP) 2012 fall awardee meeting was held on October 10. The workshop, Prove It Makes a Difference: Evaluation Best Practices for Health and Safety Training was held October 11- 12, 2012. The workshop brought together WTP awardees and others interested in evaluation of worker safety and health training. The workshop explored the types of evaluation tools being used by WTP awardees in their training programs, and looked at metrics used by other federal agencies to evaluate training. Participants discussed what defines effective safety and health training, and the impact that safety and health training can have. Workshop participants explored and shared different types of evaluation tools used to review training programs and looked at different metrics used to evaluate training. The meeting report provides a brief historical background on NIEHS WTP’s training evaluation and provides summaries of the different presentations given by panel members and outcomes from the various breakout sessions. The report also provides a list of recommended actions that NIEHS and its

awardees should take in order to improve the quality of training programs.

Conference presentations, workshop proceedings and the summary report can be found at: [https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2012/fall\\_meeting/index.cfm](https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2012/fall_meeting/index.cfm)

The workshop was highlighted in an article in the NIEHS’ eFactor newsletter available at: <http://www.niehs.nih.gov/news/newsletter/2012/11/spotlight-wetp/index.htm>



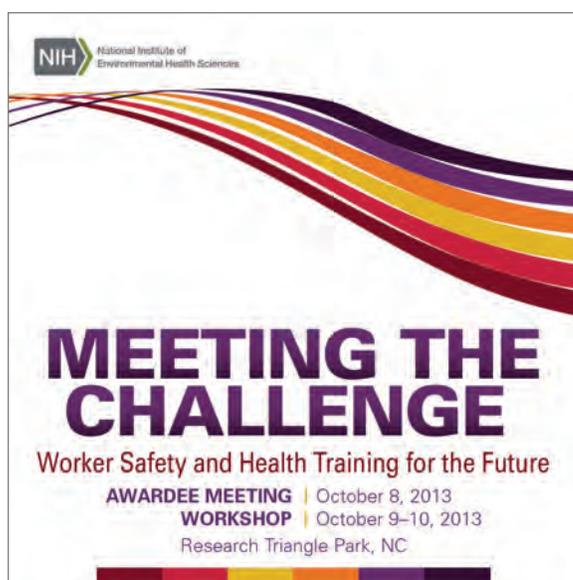
**Summer 2013 WTP Awardee Meeting and Safety Culture/Climate Workshop**  
**June 10-13, 2013 • Washington, D.C.**

The summer 2013 WTP Awardee Meeting was held on June 10, 2013. The semi-annual meeting brought awardees together to provide program updates, exchange information regarding training, and discover new areas of interest to awardees. The Safety Culture/Climate Workshop, hosted by CPWR - The Center for Construction Research and Training, in partnership with NIOSH, and NIEHS was held on Tuesday, June 11th and Wednesday, June 12th. The workshop brought together the best available evidence from academics and practitioners to help define and promote the spread of effective interventions to enhance safety culture/climate,

promote worker empowerment, and reduce injuries and illness. Participants discussed the definition of safety culture and how to overcome barriers to developing strong safety and health programs, and safety culture. Participants also shared information on how to maintain safety and health programs (avoiding normalization of deviance and the erosion of safety practices) and explored how safety and health programs and safety culture fit into the WTP strategic plan and future training activities.

Conference presentations, workshop proceedings and the summary report can be found at: [https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2013/summer\\_meeting/index.cfm](https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2013/summer_meeting/index.cfm)

The workshop was highlighted in an article written by Clearinghouse staff member Ryan Campbell in the NIEHS' eFactor newsletter available at: <http://www.niehs.nih.gov/news/newsletter/2013/7/spotlight-wetp/index.htm>



### 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 and workshop 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 ECWTP. The webinar was opened up for questions from participants, which generated interesting discussion regarding future directions of the program.



### Chemical Facility Safety in an Era of Climate Change: Training for Worker Participation and Community Engagement

April 8-9, 2014 • Los Angeles, California

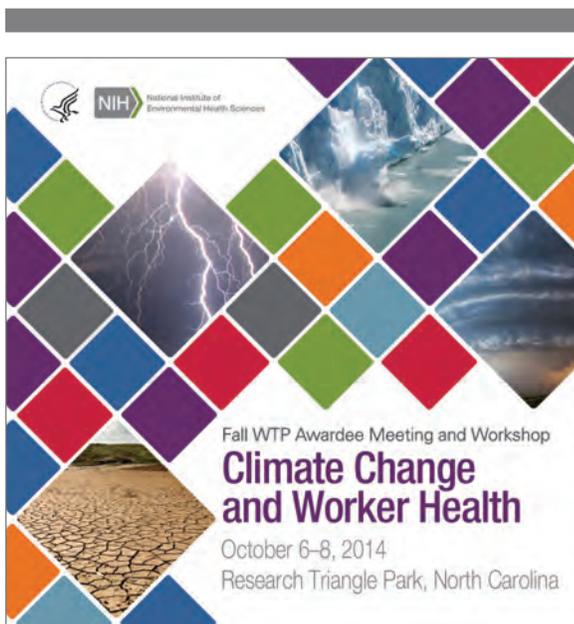
Two new presidential executive orders – on chemical facility safety and climate change – were the focal point of a one-and-a-half-day session with WTP awardees that was hosted in partnership with the Labor Occupational Safety and Health Program at the University of California, Los Angeles (UCLA-LOSH).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

A disaster research response tabletop exercise was held prior to the meeting that involved federal, state, and local government officials, as well as community, academic and labor union stakeholders.

Conference presentations, workshop proceedings and the summary report can be found at: [https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2014/spring\\_meeting/index.cfm](https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2014/spring_meeting/index.cfm)



## WTP 2014 Fall Awardee Meeting and Workshop: Climate Change and Worker Health

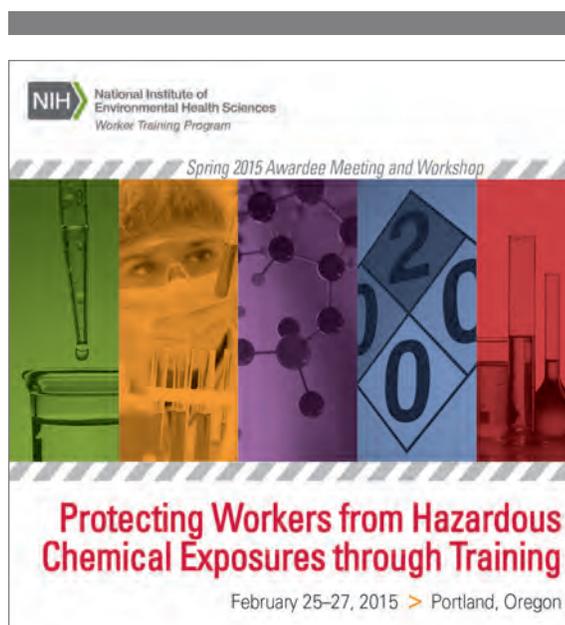
October 6-8, 2014 • Research Triangle Park, North Carolina

The workshop focused on the serious health risks that workers in various industries will face as the consequences of climate change become more and more prominent. Workshop participants explored lessons learned and best practices to prepare workers for climate change effects. Participants also engaged in discussions about curricula that can be developed to help build a more resilient and

sustainable workforce and community.

Conference presentations, workshop proceedings and the summary report can be found at: [https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2014/fall\\_meeting/index.cfm](https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2014/fall_meeting/index.cfm)

The workshop was highlighted in an article by Clearinghouse staff member Tara Failey in the NIEHS e-factor: <http://www.niehs.nih.gov/news/newsletter/2014/11/spotlight-climatechange/index.htm>



## WTP 2015 Spring Awardee Meeting and Workshop: Protecting Workers from Hazardous Chemical Exposures through Training

February 25-27, 2015 • Portland, Oregon

American workers are exposed to thousands of chemicals every day, and new chemicals are being developed faster than their safety can be evaluated. Each year in the United States, many thousands of workers are made sick from chemical exposures, and the long-term effects of chemical exposures in the past are believed to cause as many as 50,000 deaths annually.

The workshop focused on a variety of approaches

to protect workers and communities from hazardous chemicals, and how these exposure prevention approaches can best be used in training.

Conference presentations, workshop proceedings and the summary report can be found at: [https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2015/spring\\_meeting/index.cfm](https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2015/spring_meeting/index.cfm)



## HAMMER/NTC Training Event and the NIEHS Worker Trainers' Exchange

March 3-5, 2015 • Richland, Washington

The 2015 HAMMER/NTC Training Event, held in conjunction with the NIEHS DOE Worker Trainers' Exchange, was an opportunity for trainers to network and share ideas about how to create more effective and empowering training; improve training skills; and exchange ideas, best practices, and techniques. More than 150 trainers and training staff from across the country participated in this unique exchange.

This is the second time that the WTP, in conjunction with the U.S. Department of Energy (DOE) National Training Center (NTC) and the Volpentest HAMMER Federal Training Center (HAMMER), conducted a Trainers' Exchange specifically for health and safety trainers within the DOE complex. In partnership with the DOE, the WTP funds eight consortia to provide safety and health training to the people who make up the workforce engaged in environmental restoration activities at DOE nuclear weapons sites.

Conference presentations can be found at: [https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2015/trainers\\_exchange/index.cfm](https://www.niehs.nih.gov/about/visiting/events/pastmtg/hazmat/2015/trainers_exchange/index.cfm)

# Task 3



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

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## Website Development and Maintenance

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

The following major activities occurred under the website development and maintenance task over the contract period:

### Static Website

- Moved all WTP meeting pages into the NIEHS CMS
  - Removed the meeting pages from the Clearinghouse pages.
  - Created a new format and reformatted all meeting pages to use the new, consistent format.
  - Added descriptive menu names to include workshop topics

### Clearinghouse Site

- Migrated all code from ColdFusion 7 to ColdFusion 9. This included:
  - Having NIEHS perform security checks and correcting all issues found.
  - Making all pages 508 compliant.
  - Implementing NIEHS internet layout tags
  - Archiving old non-508 compliant content.
- Implemented responsive design so that all the pages and menus display properly regardless of screen size.
- Designed and developed a new combined booklet ordering form. This replaces the 14 separate forms that were there originally.
- Implemented a booklet inventory system.
- Designed and implemented new form field validation that validates all fields and increases security.
- Implemented SSL for the Clearinghouse website.

## Data Management System

- Migrated all code from ColdFusion 7 to ColdFusion 9. This included:
  - Having NIEHS perform security checks and correcting all issues found
  - Making all pages 508 compliant
- Redesigned the Admin reports and the Admin report request page.
- Developed a new template and a new upload and validation process for initial and final progress report entry.
- Provided Data Management System and Curricula Catalog user support for all grantees.

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## Website Re-design

Over time, it has become clear that the current Clearinghouse website needs to be updated with a user-friendly functionality. Consequently, the Clearinghouse has begun major redesign. 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.

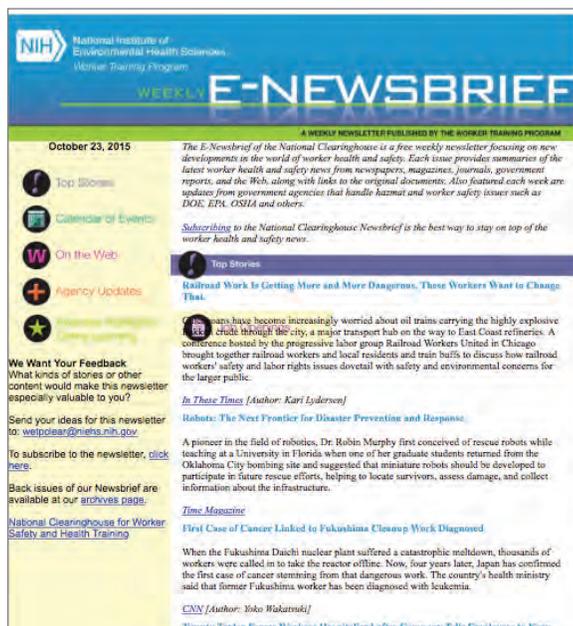
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## 508 Compliance

By law, and because government information should be available to everyone, Clearinghouse staff routinely ensure that documents posted on the website are accessible to people with disabilities – that they are “508 compliant.” Over the course of the contract, MDB removed documents that were not 508 compliant in order to replace those documents with compliant versions. New documents are now made 508 compliant prior to posting. Annual 508 compliance reports are available in the appendix of each Annual Report. Subscription and data entry forms on the public facing WTP webpages have been updated to conform to 508 compliance guidelines.

## National Clearinghouse Web Statistics

Examining web usage is informative as new pages are developed and added to WTP and Clearinghouse pages. As the tracking system for web visits has changed over the 5 year contract, full 5 year trends are unavailable. Annual trends for individual years may be available in each annual report. Clearinghouse staff recently gained access to Webtrends data and have created a specific Clearinghouse profile of tracked elements for future reporting.



## Weekly Digital Newsbrief

The Clearinghouse weekly Newsbrief is delivered every Friday to more than 1,500 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.

The Clearinghouse e-Newsbrief is developed by the Clearinghouse with input from WTP staff.

## Webinar Support

The Clearinghouse provided technical support for several webinars held by WTP staff. Clearinghouse staff provided support for a webinar presentation for The New England Consortium's (TNEC) advisory board in December 2010. Clearinghouse staff supported Sharon Beard in a Minority Worker Training Program webinar held on March 7, 2011. The webinar provided an update on the WTP Program, details on the Brownfields 2011 Conference, and information on upcoming meetings, including the Spring 2011 Awardee Meeting and Workshop in Mobile, AL. Clearinghouse staff supported and facilitated webinars for HDPTP awardees held March 2 and June 20, 2011. Clearinghouse staff provided support for a webinar presentation hosted by the NIEHS WTP, Environmental Justice Committee, and the Environmental Health Section of the American Public Health. In support of the ECWTP economic impact report, Clearinghouse staff used webinar technology to expedite the review process and allow for multi-state author collaboration. Staff again supported a webinar in place of the Fall 2013 awardee meeting and workshop, which was converted to a digital meeting following the government shutdown.

## Resource Pages

The National Clearinghouse created and updated resource pages that provide documents and resources that address government and public preparedness in emergency and disaster situations, as well as programmatic updates. The website was also updated to reflect new awardees, and individual awardee web pages were created or

updated accordingly on the WETB Program page.

In response to unfolding events, the Clearinghouse works to ensure that all Clearinghouse Web pages provide the latest findings and links. As documents were finalized and approved by WTP staff, all were made 508 compliant and posted quickly.

In late 2014, all content on the Hurricanes page was updated to ensure that documents related to response (safety, debris, flood, mold) are conveniently organized and that materials for specific past events (Sandy, Katrina, Irene) were archived.

The Clearinghouse has also worked to ensure all references on the Clearinghouse website to the Worker Education Training Program (WETP) and the Minority Worker Training Program (MWTP) have been revised to reflect the new program names – the WTP and the Environmental Career Worker Training Program (ECWTP).

#### **New or revised webpages were created for:**

##### **Hurricane Irene (August 2011)**

- Protecting Yourself While Removing Post-Disaster Debris From Your Home or Business.
- The page also includes other useful resources, including other links and resources from other federal agencies that would be useful to those who will respond to the Hurricane.

##### **Hurricane Sandy (October 2012)**

- Mold Remediation
- Updated hurricane guidance to include cold weather hazards.
- Created page; added and updated resources as they were available.

##### **Earthquakes (April 2015)**

- Including links in Nepalese following Nepal earthquake

##### **Resilience**

- Created page and added all meeting reports, summaries and training materials as they were developed.

##### **Ebola and Infectious Disease**

- Created page; added an updated resources as they were available

##### **Floods**

- Updates in the wake of 2014 Colorado floods

##### **Oil Spills**

##### **Wildfires**

- Reviewed and updated in advance of fire season in the western US

#### **In addition to complete page revisions and the posting of links to more information, the Clearinghouse updated and posted the following materials:**

- Protecting Yourself While Removing Post-Disaster Debris From Your Home or Business Training Tool (PDF and PPT)
- Meeting Reports from all semi-annual workshops and meetings
- Provider Awareness of Patients with Environmental/Occupational Chemical Exposures
- Worker Awareness of Environmental/Occupational Chemical Exposures and Communicating with Your Healthcare Provider flyers were developed and posted on the Clearinghouse web page.
- Safety Awareness for Responders to Hurricanes booklets in English, Spanish, and ePub versions.
- NIEHS Mold Remediation Guidance
- Mold Clean Up and Treatment Orientation Training Tool PowerPoint in English and Spanish
- Guidelines for the Protection and Training of Workers Engaged in Maintenance and Remediation Work Associated with Mold
- Resilience
  - Meeting summaries
  - Worker participant and instructor manuals
  - Supervisor participant and instructor manuals
  - Care Provider presentation and instructor guide
  - Worksheets and presentations

## Emergency Response Worker Safety and Health Booklets

The Clearinghouse has developed, disseminated, and translated awareness-level training tools and companion booklets for workers participating in disaster response and cleanup activities. The pocket-sized booklets are distributed around the country (See Figure 5) and shared during training and used as a resource when workers are on a disaster site. Some of these booklets are produced in more than one language. More than 485 requests for booklets were placed in the past 5 years, with more than 91,000 booklets shipped, and reported to be used in at least 38 states. Table 1 shows the number of booklets that were ordered between September 2010 and September 2015. The most commonly requested booklets were Hurricane Safety (In English and Spanish) and intended audiences varied from displaced residents to state government officials. Most booklets were reported to be used in conjunction with training.

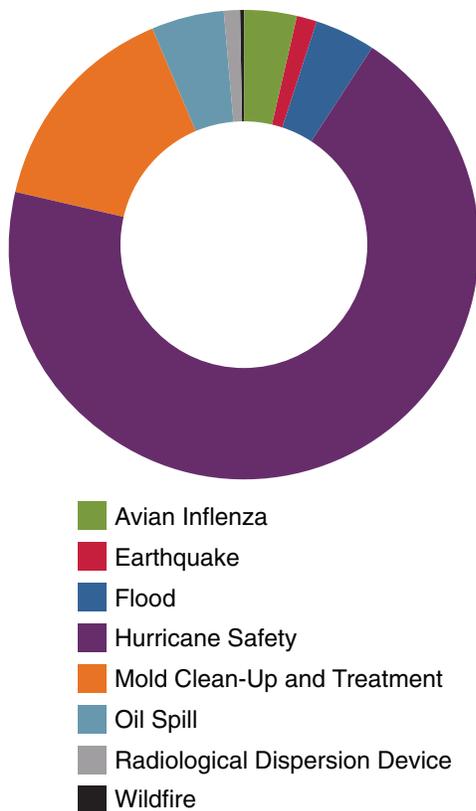


Figure 1: Booklets Distributed by Disaster

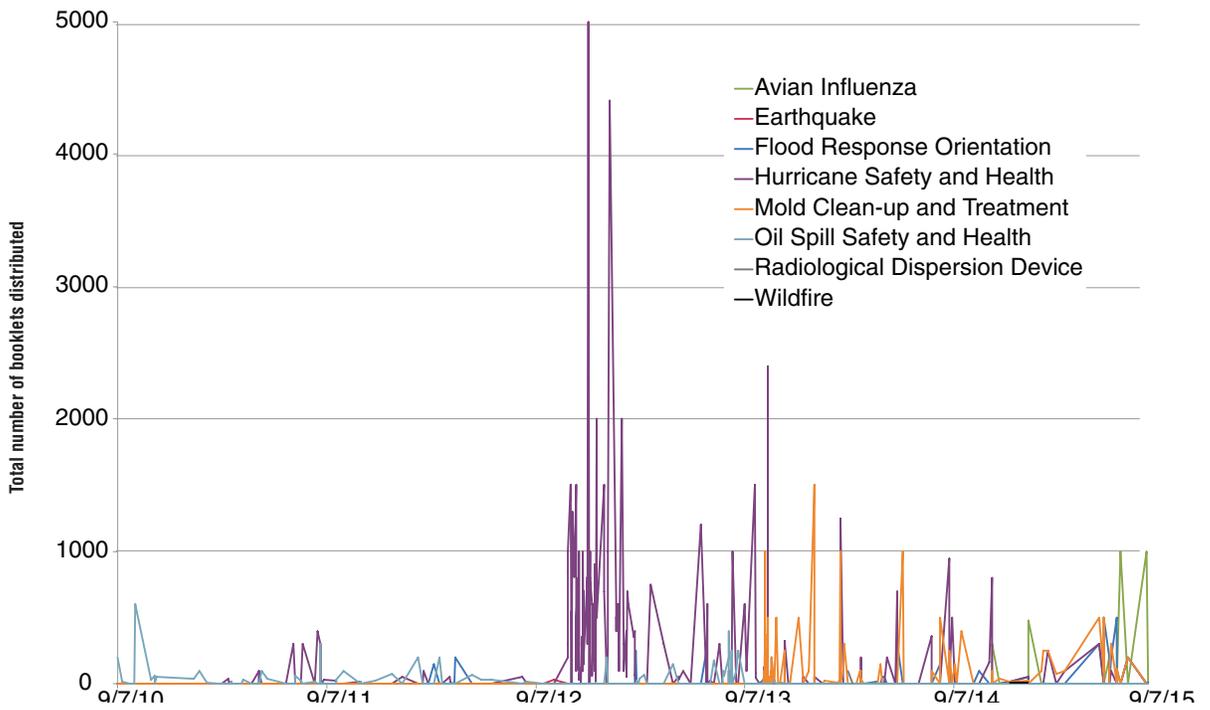


Figure 2: Booklets Distributed over 5 years by month

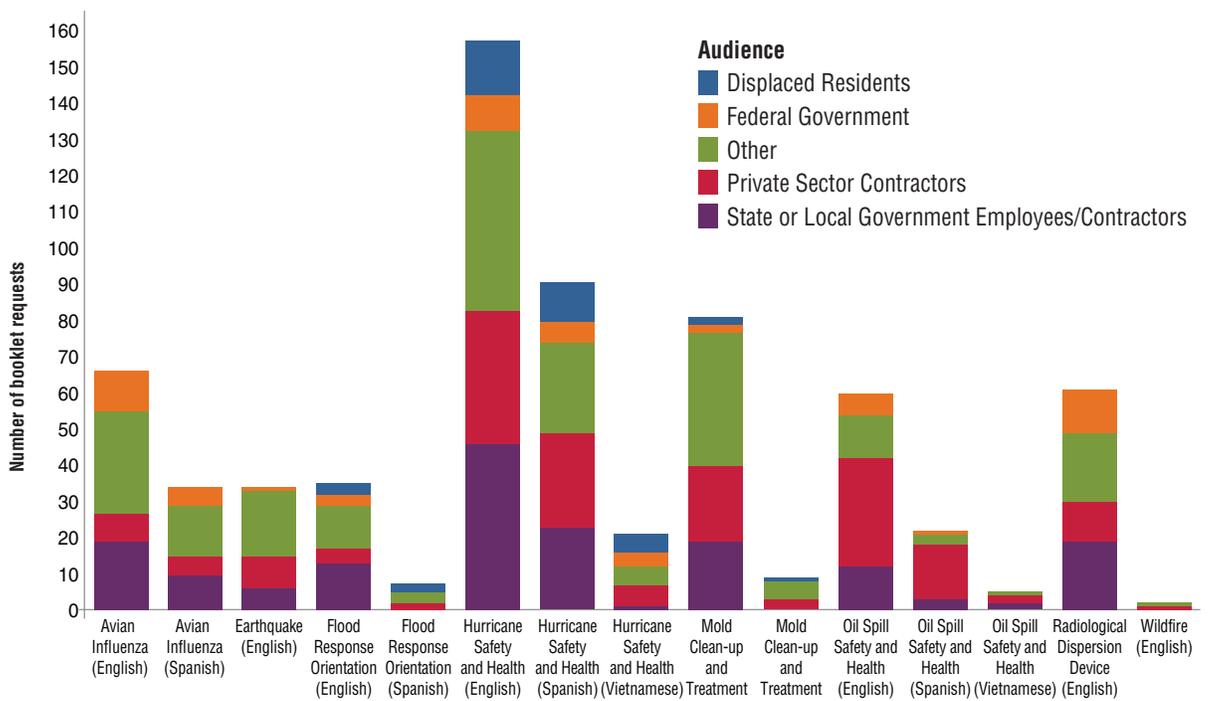
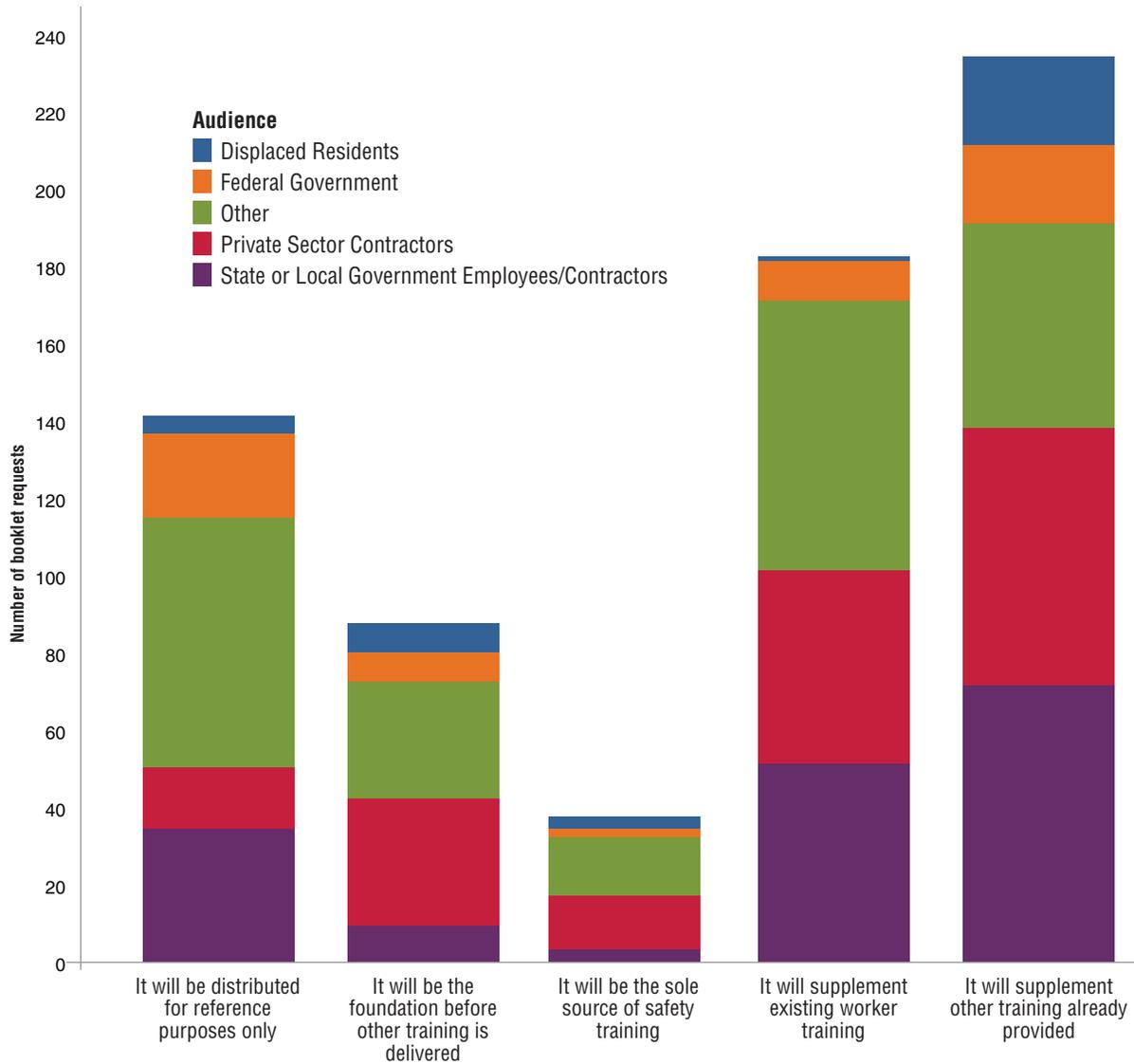
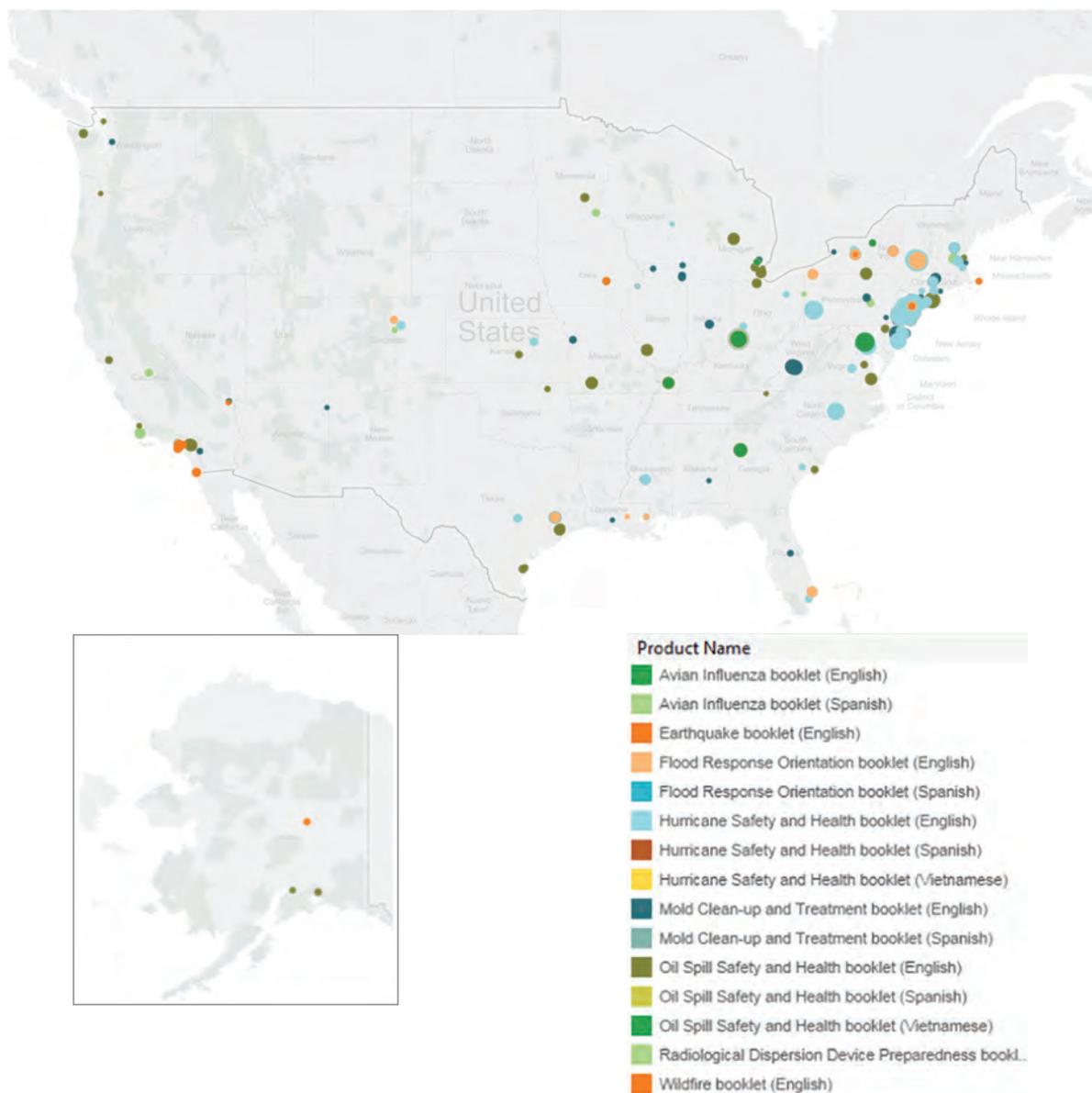


Figure 3: Booklet type by Audience



**Figure 4: Intended Audience and Intended Booklet Use**



**Figure 5: Training Location of Distributed Books by Booklet Type (scaled to number of booklets requested)**

### 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/ 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.

# Task 4

*Develop, analyze and compile program research products to enhance on-going initiatives and to support new training initiatives and the continuation of program efficacy measures*



## Development of WTP Handouts

In light of the WTP awards announced in August 2010, the Clearinghouse designed a new awardee profile handout that announced the 20 awardees (2011-2015). In addition, the Clearinghouse developed a Clearinghouse Overview Factsheet and a program success factsheet that summarizes annual training successes and contact hours.

**NIEHS Worker Training Program**

**WTP Training Programs**

- Hazardous Waste Worker Training Program (HWWP)** – This program provides model occupational safety and health training for workers who are or may be engaged in activities related to hazardous waste removal, containment, or chemical emergency response.
- NIEHS/DOE Nuclear Worker Training Program** – This program focuses on training workers engaged in environmental restoration, waste treatment, and emergency response activities at sites in the U.S. Department of Energy (DOE) nuclear weapons complex.
- Environmental Career Worker Training Program (ECWTP)** – Known as the Minority Worker Training Program (MWTP) until 2014, this program focuses on delivering comprehensive training to increase the number of disadvantaged and underserved minority workers in areas such as environmental restoration, construction, hazardous materials/waste handling, and emergency response. The NIEHS/US Environmental Protection Agency (EPA) Brownfields Minority Worker Training Program ended in 2008 and a specific Brownfields job training component has been incorporated into this program.
- HAZMAT Disaster Preparedness Training Program (HDPTP)** – This program supports the development and delivery of disaster-specific training to prepare workers to respond to natural disasters and possible future terrorist incidents involving weapons of mass destruction.
- Small Business Innovation Research (SBIR) E-Learning for HAZMAT Programs** – This program focuses on the development of e-learning products that support health and safety training of hazardous materials workers, emergency responders, and related support personnel; community and citizen preparation and resiliency; and research into the acute and long-term health effects of environmental disasters.

Year	Fed. Dollars	Total Dollars	Total Dollars
1988-1988	35,483	730,953	11,417,351
1989	3,981	74,013	956,251
2000	4,124	75,155	864,350
2001	4,806	79,719	1,029,294
2002	5,298	93,996	1,088,503
2003	5,586	96,265	1,132,682
2004	7,054	154,127	1,222,263
2005	7,663	150,137	1,211,824
2006	6,696	111,872	1,159,651
2007	7,848	131,837	1,425,059
2008	8,119	140,138	1,385,968
2009	9,309	149,488	1,454,660
2010	9,075	172,306	1,552,429
2011	7,715	134,539	1,369,807
2012	8,444	127,258	1,348,264
2013	8,607	142,141	1,407,152
2014	9,550	161,693	1,405,985
<b>Total</b>	<b>191,413</b>	<b>2,483,728</b>	<b>31,964,143</b>

**Protecting Yourself While Removing Post-Disaster Debris from Your Home or Business**

**Debris removal guidelines**  
In efforts to expedite the debris removal process, please follow these rules:

- Piling debris near or on trees, poles or other structures makes removal difficult. This includes fire hydrants and meters.
- Debris should be placed outside.
- Debris should not block roadway.

**Debris separation**  
Please separate debris into the six categories, shown below:

- Electronics**: television, computer, stereo, phone, DVD player.
- Large Appliances**: refrigerator, washer/dryer, air conditioner, stove, water heater, dishwasher.
- Hazardous waste**: Oil, battery, pesticide, paint, cleaning supplies, compressed gas.
- Vegetative debris**: tree branches, stumps, logs, plants.
- Construction debris**: building materials, drywall, lumber, carpet, furniture, plumbing.
- Household garbage**: bagged garbage, discarded food, paper, packaging.

**Do not leave items unsecured or unsecured.**

Logos: FEMA, NIEHS, US Army Corps of Engineers.

## Development and production of NIEHS “Protecting Yourself While Removing Post-Disaster Debris From Your Home or Business Factsheet.”

In response to Hurricane Irene in August 2011, NIEHS worked closely with other federal agencies to develop the “Protecting Yourself While Removing Post-Disaster Debris From Your Home or Business Factsheet.” The factsheet provides awareness level information on post-disaster hazard for small business owners, residents and community/ faith based volunteer groups conducting post-disaster cleanup activities.

The purpose of this fact sheet is to provide awareness-level information on post-disaster hazard for small business owners, residents, and community/faith-based volunteer groups conducting post disaster cleanup activities.

Handouts can be found at: [http://tools.niehs.nih.gov/wetp/public/has\\_get\\_blob.cfm?id=9295](http://tools.niehs.nih.gov/wetp/public/has_get_blob.cfm?id=9295)

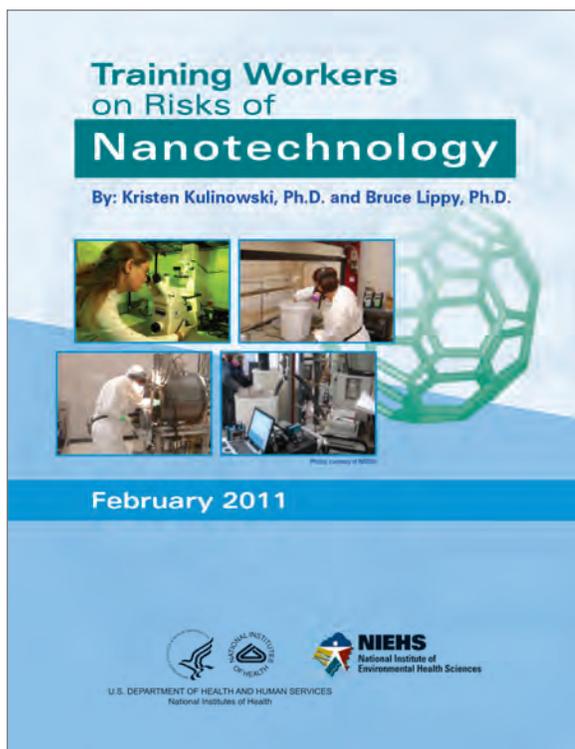
## Japan Earthquake and Tsunami

On March 11, 2011, a catastrophic 9.0-magnitude earthquake occurred on the northeastern coast of Honshu, Japan. The earthquake triggered a destructive tsunami wave up to 33 feet which hit the coast of Japan within minutes after the earthquake and traveled up to six miles inland. The earthquake and tsunami caused extensive damage to infrastructure in Japan, including damage to roads, railways, and dams and initiated fires in many areas. In addition, the earthquake also caused damage to the Fukushima Daiichi nuclear power plants, which has led to radiation leakage. The National Clearinghouse created a new 2011 Earthquake resource page to include a background on the disaster and new websites from federal and other sources in response to the Japan earthquake. In response to the event, a training tool was compiled to provide workers with awareness-level information on: what earthquakes/tsunamis are, characteristics of an earthquake response, and how to identify and control hazards pertaining to the response and cleanup activities associated with an earthquake. This tool also focuses on radiological hazards created by the Fukushima Daiichi nuclear power plant. This tool is available in English and Japanese.



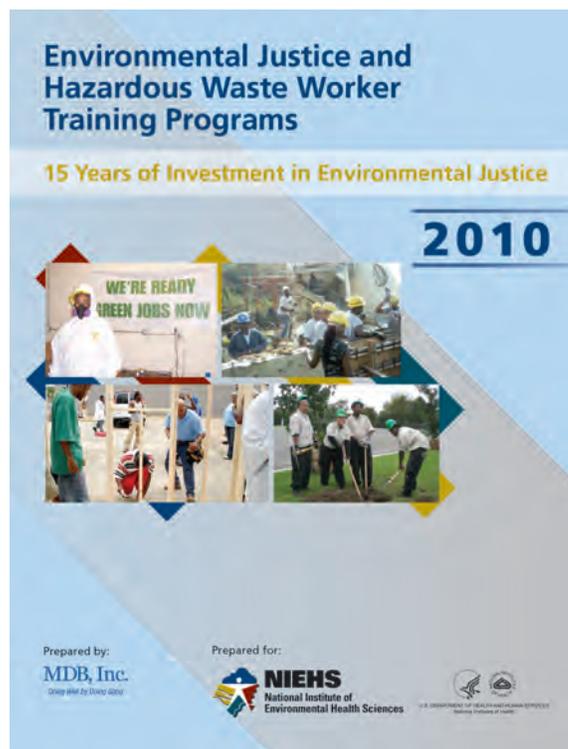
### Development and production of an NIEHS Response Training Tool for 2011 Japan Earthquake

In response to the 2011 earthquake and tsunami in Japan, NIEHS developed the NIEHS Response Training Tool: Controlling Hazards during the 2011 Earthquake and Tsunami Response. This training tool is an awareness-level health and safety resource for U.S. responders (including USAR, medical personnel, rad-techs and military personnel) who may participate in the response. This tool will provide workers with awareness-level information on: what earthquakes/tsunamis are, characteristics of an earthquake response, and how to identify and control hazards pertaining to the response and cleanup activities associated with an earthquake. This tool also focuses on radiological hazards created by the Fukushima Daiichi nuclear power plant. The Clearinghouse had the tool translated into Japanese. All materials are available at: <http://tools.niehs.nih.gov/wetp/index.cfm?id=2505>



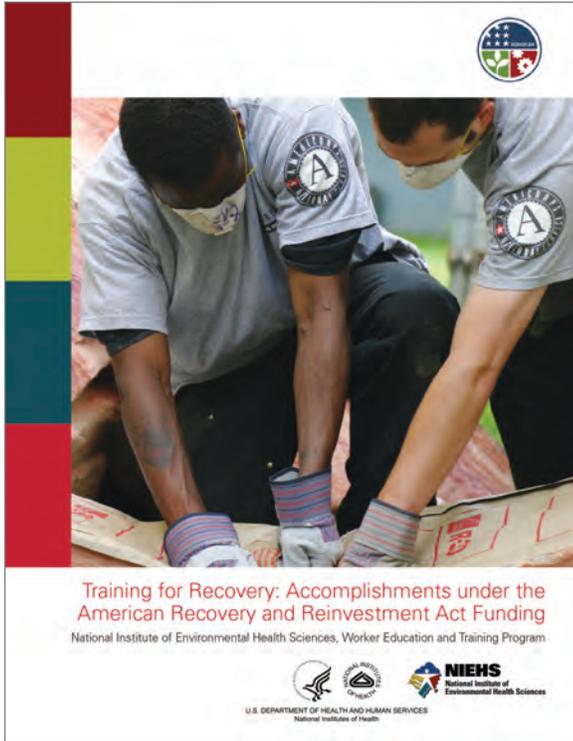
## Nanotechnology and Training White Paper

This guidance document was finalized during the FY2011 contract year. Since its publication, NIOSH has used sections of the guidance as the basis for a chapter on nanotechnology in its industrial hygiene text, called “The Industrial Environment: Its Evaluation and Control.” In addition, Dow Corning Corporation has used images from the guidance for internal purposes. Finally, Kristen Kulinowski, one of the authors of the guidance, used it as the basis for a successful application for a Harwood grant to develop and implement materials and training modules on the safe handling of nanomaterials. The report can be found at: [http://tools.niehs.nih.gov/wetp/public/hasl\\_get\\_blob.cfm?id=9094](http://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?id=9094)



## Environmental Justice and Jobs Training Report

Clearinghouse staff developed an “Environmental Justice and Hazardous Waste Worker Training Programs: 15 Years of Investment in Environmental Justice” report that documents the implications and benefits of federal hazardous waste worker training programs in addressing environmental justice, in particular for the benefit of the residents of low-income and minority communities. The report was started during the previous contract year and was finalized in February 2011. The report can be found at: [http://tools.niehs.nih.gov/wetp/public/hasl\\_get\\_blob.cfm?id=9014](http://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?id=9014)



## Training for Recovery: Accomplishments under the American Recovery and Reinvestment Act Funding

The Clearinghouse wrote this report to document the projects and activities of the NIEHS WTP awardees that received Recovery Act funds. It highlighted the subsequent successes and best practices of these worker safety and health training organizations. The report was started during the last contract year and was finalized in February 2011. The report can be found at: [http://tools.niehs.nih.gov/wetp/public/hasl\\_get\\_blob.cfm?ID=9076](http://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=9076)



## ARRA Accomplishments and Worker Education and Training Program Videos

The National Clearinghouse produced several videos for WTP during FY 2010/2011. In order to best document the accomplishments and successes of the NIEHS WTP awardees who received ARRA funds, the video highlights these awardees' activities and projects. Specific visuals included sit-down interviews, workers in the field explaining (and showing) their work, and existing photos and videos of workers on the job or within training situations. This ARRA video was posted on the Clearinghouse homepage. With the footage taken, the Clearinghouse was also able to produce a shorter four minute video that showcases the importance of the Worker Training Program. An additional five videos were produced. The videos feature interviews with:

- Chip Hughes, Branch Chief, Worker Education and Training Branch, NIEHS
- Gwen Collman, Ph.D., Director, Division of Extramural Research and Training, NIEHS
- Beverly Wright, Ph.D., Principal Investigator (PI), Dillard University, Deep South Center for Environmental Justice
- Linda Delp, Ph.D., PI, Western Region Universities Consortium
- Mitchel Rosen, Program Contact, New Jersey/New York Hazardous Materials Worker Training Center.

Each of these interviews, as well as the shorter WTP specific video, is linked to the Clearinghouse website.

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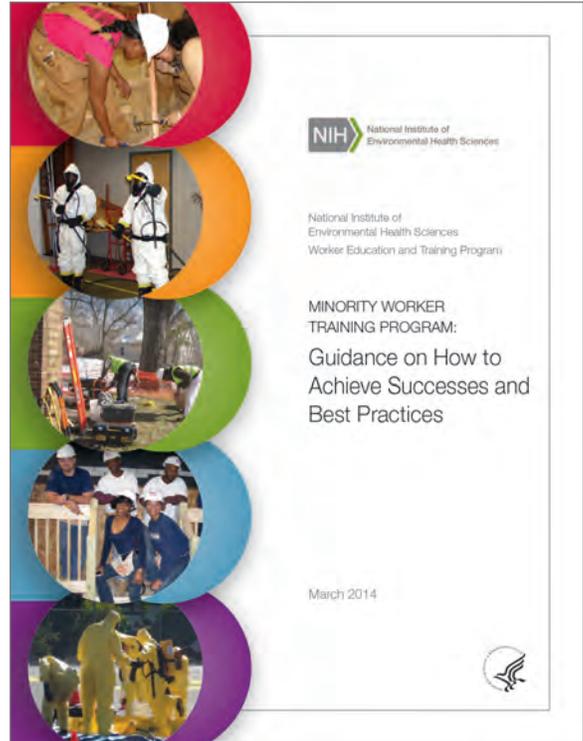
## Emergency Responder Health Monitoring and Surveillance (ERHMS) Comments

On February 4, 2011, the NIOSH issued a request for public comment on the draft “Emergency Responder Health Monitoring and Surveillance” (ERHMS) document. The document proposes a new framework for ensuring responder safety and health by monitoring and conducting surveillance of their health and safety during the entire cycle of emergency response, including the pre-deployment, deployment, and post-deployment phases of a response. The Clearinghouse submitted comments with the hopes of strengthening the language around required pre-deployment training. The ERHMS document was made public in January 2012.

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## Comments on the National Response Framework

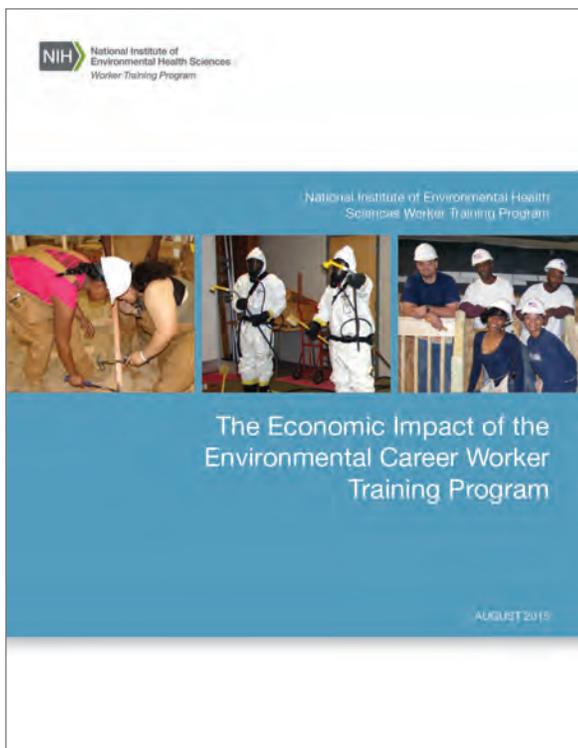
In the spring of 2012, FEMA requested comments on its revision of the National Response Framework. There was concern that the Safety and Health Annex was removed from or left out of the revision. Clearinghouse staff moved quickly to research the issue and draft comments to share with awardees that encouraged the agency to ensure that any revision include a mechanism for a coordinating structure for worker safety and health such as the Safety and Health Annex, or a new Emergency Support Function for worker safety and health.



## Minority Worker Training Program Guidance on How to Achieve Successes and Best Practices

In order to document the best practices of the Minority Worker Training Program, Clearinghouse staff drafted the Minority Worker Training Program: Guidance on How to Achieve Successes and Best Practices report. The MWTP model is effectively designed to address the significant impediments to training and employment that challenge underserved minorities and other disadvantaged individuals. The program has helped to increase sustainable employment opportunities, promote economic development, address health disparities, and advance environmental justice; transforming the lives of trainees, families, and communities traditionally overburdened by economic distress and exposures to hazardous environmental conditions. The MWTP provides a model and useful guidance for other Federally-funded worker training programs focused on recruiting and training underserved and disadvantaged individuals for sustainable employment opportunities.

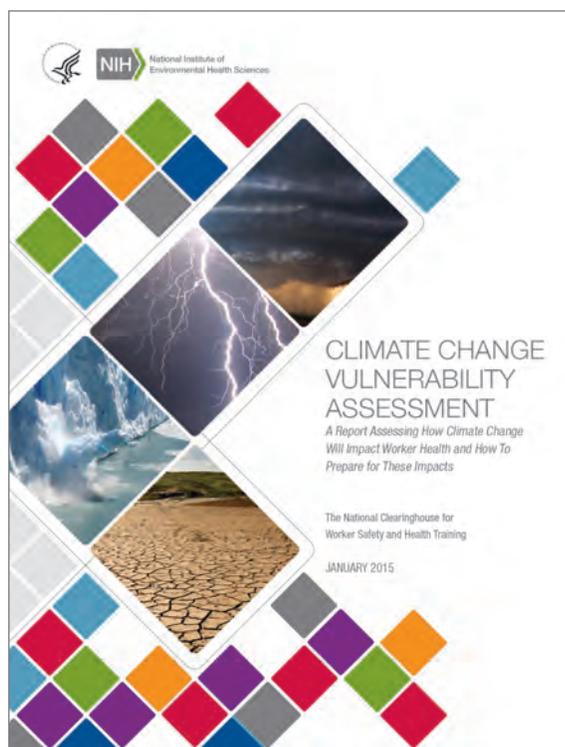
The report provides major findings as well as recommendations. The final report can be found at: [http://tools.niehs.nih.gov/wetp/public/hasl\\_get\\_blob.cfm?ID=10040](http://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=10040)



### ECWTP Economic Analysis Report

In order 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," Clearinghouse staff worked to identify labor and environmental economists to evaluate and document the benefits of the WTP, beginning with the ECWTP. The study approach was highly interactive involving the grantees, economists, and Clearinghouse staff in the effort. Staff initially identified economists Bryan Engelhardt and Robert Baumann from Holy Cross, and Anthony Oliver from University of Illinois as primary authors of the study. Following several meetings with the economist to

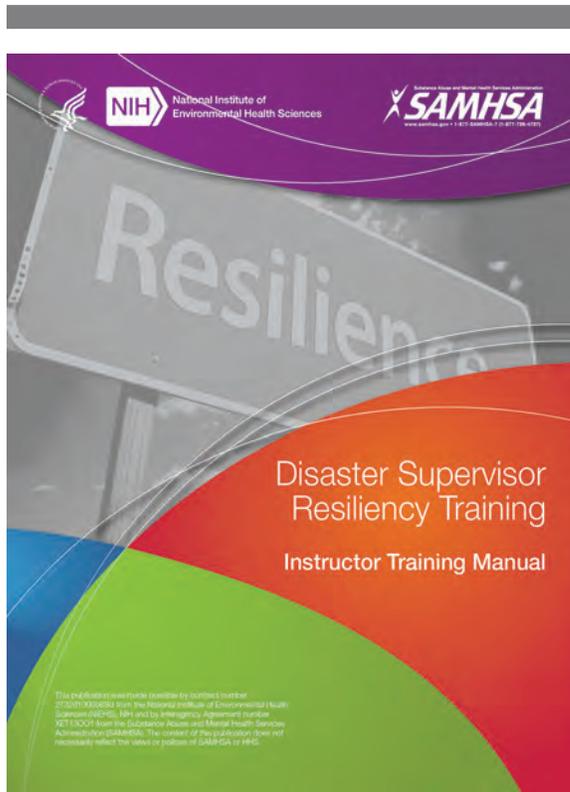
develop a methodology, data was collected from awardees and analyzed. Following the release of an initial draft, the document underwent several reviews. The final report is awaiting internal NIEHS approval (as of September 2015). Findings of the report include financial and fiscal benefits of higher earnings, fewer injuries, lower hiring costs, less crime, higher government revenue and lower costs, improved environment, and leveraged resources and services from local organizations. Clearinghouse staff have supported the review process and are developing communications tools to allow grantees to confidently discuss findings.



### Climate Change Vulnerability Assessment

As part of the preparation for the 2014 Climate Change and Worker Health Workshop, Clearinghouse staff developed the "Climate Change Vulnerability Assessment." This report was compiled through a review of the current available literature on climate change and worker health; a review and assessment of available training and resources on worker health and climate change

vulnerability-related modules; and consultation and review by the WTP awardee community. The report, now available online, aims to help WTP and its awardee community better plan for the health impacts and programmatic changes due to predicted changes in the global climate. The final report is available at: [http://tools.niehs.nih.gov/wetp/public/hasl\\_get\\_blob.cfm?ID=10261](http://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=10261)



## Disaster Worker Resiliency Training

Building upon two years of successful partnership with the Substance Abuse and Mental Health Services Administration (SAMHSA), the Clearinghouse concluded the Gulf Responder Resiliency Training Program in August 2015. Over the past year, Clearinghouse staff organized final pilot trainings for the disaster supervisor course and the disaster care provider course, finished all participant and instructor materials, and had the course materials translated into Spanish. All materials are now available on the Clearinghouse Resiliency Web page and are free for use by the public and educators. To conclude the project,

the Clearinghouse provided a final report of all activities and a final evaluation report summarizing project successes and findings. All materials can be found at: <http://tools.niehs.nih.gov/wetp/index.cfm?id=2528>

## Partnerships and Representation

Members of the Clearinghouse staff represent the Clearinghouse and the WTP in various meetings throughout the year. The Clearinghouse also assists WTP staff in preparing abstracts, posters, and presentations for major conferences and briefings.

### The Clearinghouse staff attended and represented the Clearinghouse and the WTP in the following meetings

- Daniel Youhas and Deborah Weinstock attended OSHA's National Advisory Committee on Occupational Safety and Health (NACOSH) meeting, September 2010.
- Deborah attended the HAMMER Steering Committee and Medical Surveillance Subcommittee meetings, October 2010.
- Deborah and Kate Shorr attended the DOE/ NIEHS Safety Training Collaboration Meeting in Idaho, October 2010.
- Joy Lee participated in the National Response Team, Worker Safety and Health Subcommittee meeting, October 2010.
- Joy participated in the Gulf SONS Spill 2010 webinar, October 2010.
- Deborah participated in the Worker Safety and Health Summit call, October 2010.
- Daniel attended the NIOSH ERHMS meeting, October 2010.
- Michael Baker and Tim Fields attended the APHA conference, November 2010.
- Deborah attended National Level Exercise meeting, December 2010
- Deborah attended training on combating behavior based safety, December 2010.
- Daniel attended Chemical Safety Board hearing on the Regulation of Offshore Oil and Gas Safety

- Practices, December 2010.
- Ryan Campbell listened to the OSHA Regulatory Agenda webcast, January 2011.
  - Deborah and Joy participated in the NRT Worker Safety and Health subcommittee call, January 2011.
  - Daniel attended the GovLoop Live Chat Making Social Media Conversations Meaningful and What's Next, Your Marketing Communications Roadmap meetings, January 2011.
  - Daniel listened to the Safeguarding Our Future, Building Nationwide Network for First Responders webcast, February 2011.
  - Daniel, Ryan, Deborah, and Tim attended the Good Jobs, Green Jobs conference, February 2011.
  - Tim and Ryan attended the Brownfields 2011 Conference, April 2011.
  - Ryan attended a Public Citizen event on Bureau of Ocean Energy Management, Regulation and Enforcement, April 2011.
  - Don Elisburg was a panel speaker at the NIOSH Stress Conference, May 2011.
  - Don, Tim, and Ryan attended the HHS EJ Listening Session, June 2011.
  - Ryan attended the FedNet meeting, July and August, 2011.
  - Deborah presented on the importance of training disaster site workers at the APHA conference, November 2010.
  - Daniel presented a social networking poster at the APHA conference, November 2010.
  - Deborah assisted in the planning of the NYCOSH 9/11 meeting, February 2011.
  - Tim helped to plan and presented on Environmental Justice and Hazardous Waste Worker Training Programs at Brownfields 2011, April 2011.
  - Tim facilitated the EJ forum at the Brownfields 2011, April 2011.
  - Tim sat on the advisory board of the State of EJ in America Conference, April 2011.
  - Deborah Weinstock attended the IAFF Instructor Development Conference, November 2011.
  - Joy Lee participated in the Command Plan webinar, December 2011.
  - Ryan and Dusty represented WTP at the HHS mHealth Summit, December 2011.
  - Deborah participated in various National Response Team Worker Safety and Health subcommittee calls throughout the year.
  - Ryan Campbell and Dustin Russell participated in the Good Jobs, Green Jobs Regional Conferences in Atlanta, GA, Philadelphia, PA, and Detroit, MI, February, April, and May 2012.
  - Deborah participated in the HSS Focus Group Training Working Group Meeting at the National Training Center, July 2012.
  - Ryan participated in the Hydraulic Fracturing and Environmental Public Health webinar sponsored by PEHP, July 2012.
  - Dusty took a 40-hour HAZWOPER class put on by the International Brotherhood of Teamsters, August 2012.
  - Joy attended the Google Maps and Emergency Response webinar, August 2012
  - Ryan participated in the National Response Team (NRT), Worker Safety and Health Subcommittee meeting, September 2012.
  - Tim sat on the advisory board of the State of EJ in America Conference, April 2012
  - Deborah attended and co-facilitated two sessions at the National Council for Occupational Safety and Health Conference (COSH), October 2011.
  - Deborah facilitated a roundtable discussion on "How information Clearinghouses can serve as a source for environmental health messaging for employers and workers," at the 2011 American Public Health Association (APHA) conference, November 2011.
  - Joy presented on Hazardous Waste Worker Training Programs and Environmental Justice at 2011 American Public Health Association (APHA) conference, November 2011.

- Deborah presented at the IAFF Advisory Board meeting, November 2011.
- Deborah participated in the Hanford Advisory Board meetings, May 2012 in DC and September 2012 in Richland, WA.
- Deborah attended the IUOE HAZMAT Program's Advisory Board Meeting, September 2012
- Kevin Yesky attended the Science Preparedness Conference, September 25, 2012
- Kevin attended the NIH Disaster Interest Group meeting, September 24, 2012
- Joy Lee participated in a UMDNJ webinar on Hurricane Sandy, November 2012
- Deborah attended the IAFF Instructor Development Conference and presented at the Advisory Board Meeting on NIEHS evaluation, November 2012
- Deborah and Dusty Russell attended the National Worker Safety and Health Conference, Dec 6-7, 2012
- Ryan Campbell and Dusty attended the Good Jobs, Green Jobs Conference, April 16-18, 2013
- Deborah attended the HAMMER Medical Surveillance Subcommittee and HAMMER Steering Committee meetings, May 2013
- Dusty attended the Brownfields conference, May 15-17, 2013 in Atlanta
- Deborah attended the Tenth Annual Work, Stress and Health Conference in Los Angeles, CA, May 16- 19th, 2013
- Deborah attended the May 29-30, 2013 HAMMER Steering Committee meeting, Medical Surveillance Subcommittee meeting and training workgroup meeting.
- Kevin participated in the I-DIG meeting at NIH, June 2013
- Ryan attended the National Environmental Health Association meeting, Washington, DC, July 9-11, 2013.
- 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).
- Deborah Weinstock attended the IUOE Advisory Board meeting in West Virginia (September 17 2014)
- Betsy Eagin and Joy Lee attended the 2014 Worker Safety and Health NRT Technical Conference in Washington D.C. (October 28 & 29 2014)
- Deborah Weinstock, Betsy Eagin, and Jonathan Rosen presented/facilitated sessions at the 2014 American Public Health Association Annual Meeting & Exposition in New Orleans. (November 15-19, 2014)
- Jonathan Rosen presented at the 2015 NIEHS DOE/Worker Trainers' Exchange in Richland, Washington (March 3-5, 2015).

- Jonathan and stakeholders presented at the Disaster Mental Health Conference, in New Paltz, New Jersey ( April 17, 2015).
- Deborah Weinstock attended the HAMMER Steering Committee Meeting in Washington D.C. (April 23 &24, 2015)

## Publications

- Deborah Weinstock served as a guest editor for *New Solutions: A Journal of Environmental and Occupational Health Policy Special Issue on Worker Health and Safety Training*, Volume 22 Number 3, 2012.
- Betsy Eagin co-authored a publication with WTP director Chip Hughes in the SAMHSA Dialogue, a quarterly newsletter for disaster behavioral health coordinators, local service providers, federal agencies, and nongovernmental organizations.
- Jonathan Rosen co-authored a paper on Hurricane Sandy and environmental justice

issues with Chip Hughes and WTP program analyst Jim Remington.

- Joy Lee and Deborah Weinstock co-Authored “Minimizing Safety and Health Impacts at Disaster Sites: the Need for Comprehensive Worker Safety and Health Training Based on an Analysis of National Disasters in the U.S. <http://www.bepress.com/jhsem/vol8/iss1/46>

## Support for HAZMAT Disaster Preparedness Training Program

Clearinghouse staff supported WTP and awardee activities during many disasters by creating informational resources, facilitating cooperation and information exchange. In addition to supporting active event responses, staff worked to address and communicate emerging hazardous threats to workers, including nanomaterials, mold exposure, and climate change. Clearinghouse staff represented WTP at a variety of preparedness related events.

## Ebola

Soon after a case of Ebola was reported in Texas, the WTP and the Clearinghouse began receiving inquiries about health and safety training for workers at risk of exposure to Ebola or Ebola-contaminated materials. Awardees were allowed to reprogram funds to address these new training needs. Clearinghouse staff supported WTP efforts by:

- Supporting a series of weekly awardee calls that began in mid-October.
- Developing an Ebola resources Web page of relevant materials.
- Participating in calls with OSHA and providing summaries of the calls.
- Participating in medical waste calls and an interagency meeting at the U.S. Department of Health and Human Services (HHS).
- Tracking awardee activities for use in program updates.
- Supporting interagency collaboration, meeting summaries, and document reviews.

Clearinghouse staff also developed model curricula for Ebola training. In January 2015, the Clearinghouse finalized “Ebola Awareness Orientation: Health and Safety Essentials for Workers,” a document intended to provide awareness-level health and safety training to personnel who work in an industry where some workers may have occupational exposure to Ebola. A full, four-hour operations-level training tool was released in April 2015.

## Hurricane Sandy

Following Superstorm Sandy, the Clearinghouse jumped into action and supported the coordination of existing grantees and others involved in safety and health training of recovery workers and volunteers.<sup>1</sup>

Immediately upon receiving requests for Hurricane booklets, staff updated content to reflect cold weather hazards that would be faced by those impacted. The Clearinghouse employed two training outreach coordinators, one in New York and one in New Jersey. The training outreach coordinators were valuable in making connections with target populations for training and identifying training needs. Many of these target populations had inadequate information on safety and health and lack access to training. Training outreach coordinators provided site visits and observations for awardees, supported the development of training and provided much needed on-the-ground coordination and connections for those responding to the event.

As awareness of mold issues grew, Clearinghouse staff began to develop materials that would later be rolled into the NIEHS Mold Remediation Guidance, the Mold Clean Up and Treatment Orientation Training Tool PowerPoint and Guidelines for the Protection and Training of Workers Engaged in Maintenance and Remediation Work Associated with Mold.

A summary of NIEHS Sandy Response Activities is available at: [http://tools.niehs.nih.gov/wetp/public/hasl\\_get\\_blob.cfm?ID=9939](http://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=9939)

Mold documents are available at: <http://tools.niehs.nih.gov/wetp/index.cfm?id=2472>

<sup>1</sup> Funding for Clearinghouse activities following Sandy came from a variety of sources, however all contributed to a meaningful response effort by WTP and awardees as the Clearinghouse was able to provide continual support for response activities.

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### Support for ECWTP

Clearinghouse staff efforts to support ECWTP focused on the development and communication of the Economic Analysis report as well as the MWTP Best Practices Report.

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### DOE Integrated Safety Management

Throughout the contract, the Clearinghouse continued to support the DOE cleanup training

program. This involved helping to convene DOE awardees in planning calls, conference calls with the HSS Union Focus Group and Labor Training Working Group and attending meetings at the National Training Center and HAMMER.

In addition to planning support for training programs, Clearinghouse staff coordinated and supported two Trainers Exchange events. The first joint event was held in Knoxville, Tennessee in 2012 and the second in Richland, Washington in 2015.

During the Fall 2010 Workshop: Back to Basics, a panel that included Charlotte Brody, BlueGreen Alliance, Don Ellenberger, CPWR, and Eric Werling, EPA, addressed the government's effort to kick start hiring and energy efficiency programs, and the movement that acknowledges that green jobs are only green if they are also safe for the workforce. As a result of the panel, Clearinghouse staff took the lead to facilitate and work with several WTP awardees and Ms. Brody to develop comments in response to DOE's Workforce Guidelines for Home Energy Upgrades. The comments included general and specific comments on Part 1: Standard Work Specification for Energy Efficiency Residential Retrofits and Part 2: Job Task Analysis Outlines. The comments emphasized that worker safety and health needs to be a core focus in the guidelines design. It also addressed the need to include language about protecting the safety and health of the person performing the green job. The comments were submitted on January 7, 2011.

In partnership with DOE's National Training Center and HAMMER, WTP and Clearinghouse staff participated in four Safety Training Collaboration meetings across the DOE complex. Meetings began Oak Ridge, TN during the last contract period and ended in Idaho Falls, ID in October 2010. Representatives from federal, contractor, and union organizations took part in this workshop. The National Training Center (NTC) within the Office of Healthy, Safety and Security (HSS) acted as the lead facilitator for the workshop which included presentations from federal as well as union leadership, HAMMER staff, and NIEHS representatives. The focus of the effort was primarily health and safety training that meets the requirements of Title 10 CFR Part 851, Worker Health and Safety Program Rule. At this meeting, Deborah Weinstock made a presentation on the site's safety and health profile from the Clearinghouse's DOE Needs Assessment report. The goal of all four meetings was to strengthen the safety of site operations; enhance the quality and efficiency of safety training programs; and reduce the redundancy/duplication of safety training programs.



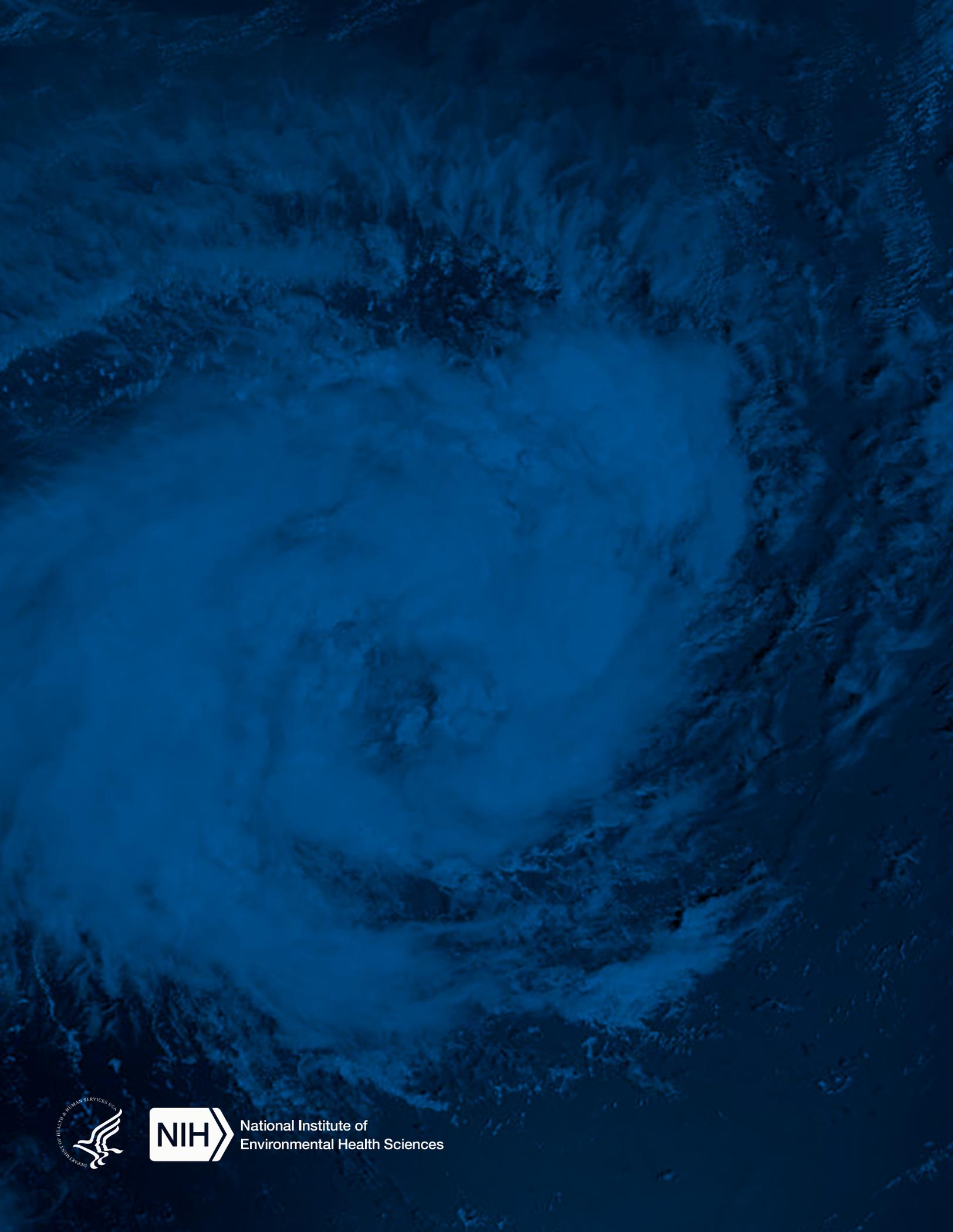
### Leveraging Partnerships and Funding

Whenever possible, the Clearinghouse leverages existing and new partnerships to deliver products of greater value to WTP and to awardees.

This year, as part of an ongoing partnership with SAMHSA, the Clearinghouse modified the disaster worker resilience training presentation into a podcast that was recorded and developed by SAMHSA. The final podcast serves to expand the reach of the Gulf Responder Resilience Training Program and is an introduction to worker course fundamentals.

Through our work with HHS/Office of the Assistant Secretary for Preparedness and Response Hurricane Sandy grantees, MDB supported the International Chemical Workers Union Council, by translating mold guidance documents into Spanish and printing and distributing additional mold booklets.

In addition, the Clearinghouse developed a new Civil Service Employees Association (CSEA) hurricane awareness booklet in both English and Spanish.



National Institute of  
Environmental Health Sciences