



National Institute of
Environmental Health Sciences

WORKER EDUCATION AND TRAINING PROGRAM

NIEHS Hurricane Sandy Response Report

September 2013





Photo courtesy of Liz Roll

INTRODUCTION

On October 29, 2012, Hurricane Sandy, one of the largest and fiercest storms to threaten the East Coast, made landfall in New Jersey. The devastating storm caused extensive damage throughout the East Coast as it released torrential rains, ferocious winds, and widespread flooding. Homes, buildings, utilities, parks, beaches, and public spaces were damaged or destroyed by wind and flood. With extensive water damage, mold emerged as a significant health hazard. Recovery workers, homeowners, and business owners were faced with significant hazards as they began the work of recovering homes and properties in the aftermath of the disaster. Experience has demonstrated that without appropriate training and support, affected responders frequently place their health and safety at risk.

In the aftermath of Hurricane Sandy, under the National Disaster Recovery Framework, the National Institute of Environmental Health Sciences (NIEHS) Worker Education and Training Program (WETP) prepared and trained cleanup workers, homeowners, and volunteers about the hazards that can be found in impacted areas.

The Occupational Safety and Health Administration (OSHA) reported conducting 4,400 interventions in Hurricane Sandy-impacted areas, and many communities are still repairing damage from the storm nearly one year later.

> NIEHS Capability for Disaster Training Response

The NIEHS Superfund Worker Training Program (WETP), which is part of the U.S. Department of Health and Human Services (HHS) in the National Institutes of Health (NIH), activated and mobilized its network of worker education and training resources to support response and cleanup activities from Hurricane Sandy to assure safe work practices and high levels of worker protection during the cleanup process. NIEHS WETP grantees, currently supported through the Federal Superfund Program, possess the resources, experience and the professional trainers to provide training that covers OSHA requirements for response workers and supervisors. Response activities may require compliance with the Hazardous Waste Operations and Emergency Response standard (HAZWOPER).

In both New York and New Jersey, the NIEHS WETP supports a vigorous network of safety and health training organizations.

This includes union-based programs, university and community college programs, and community non-profits. It also includes the non-profit training branch of the New Jersey State Highway Patrol. In total, over the past five years these organizations have provided in New York and New Jersey more than 9,000 courses for more than 155,000 workers on a wide variety of safety and health topics. The primary focus has been HAZWOPER where in New Jersey alone nearly 14,000 workers have received training. The awardees have the capacity to provide training on disaster response, incident command systems, lead, asbestos, and mold remediation, confined space, lockout/tagout, and numerous other topics.

The awardees include the New Jersey/New York Consortium which includes Rutgers, The State University of New Jersey; Hunter College, City University of New York, School of Health Sciences, New York Committee for Occupational Safety and Health (NYCOSH), New Jersey State Police, University at Buffalo, New York Carpenters Labor Technical College, and the Universidad Metropolitana. Other awardees include the P.E.T.E. community college consortium whose members include Niagra and Ulster Community Colleges in New York; and the following union based training organizations: IUOE, LIUNA, IBT, CCRT-CPWR, SEIU, New York Civil Service Employees Association (CSEA), Local 1000, AFSCME; International Association of Firefighters.


The awardees have the administrative and physical structures to provide site specific and hazard specific training. This includes curricula, trainers, initial training supplies and equipment, classroom facilities, and mobile training vans. They also have the demonstrated ability to facilitate required training certifications with state and local regulatory bodies.

+9,000
courses

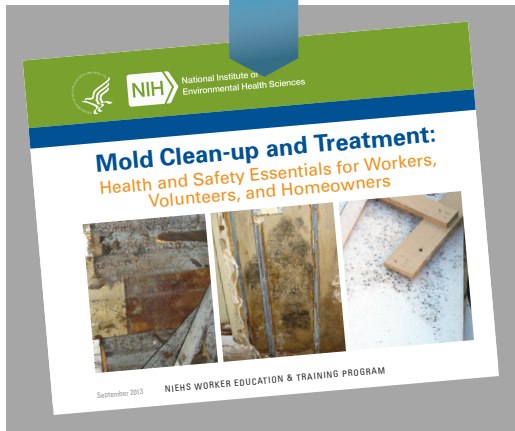
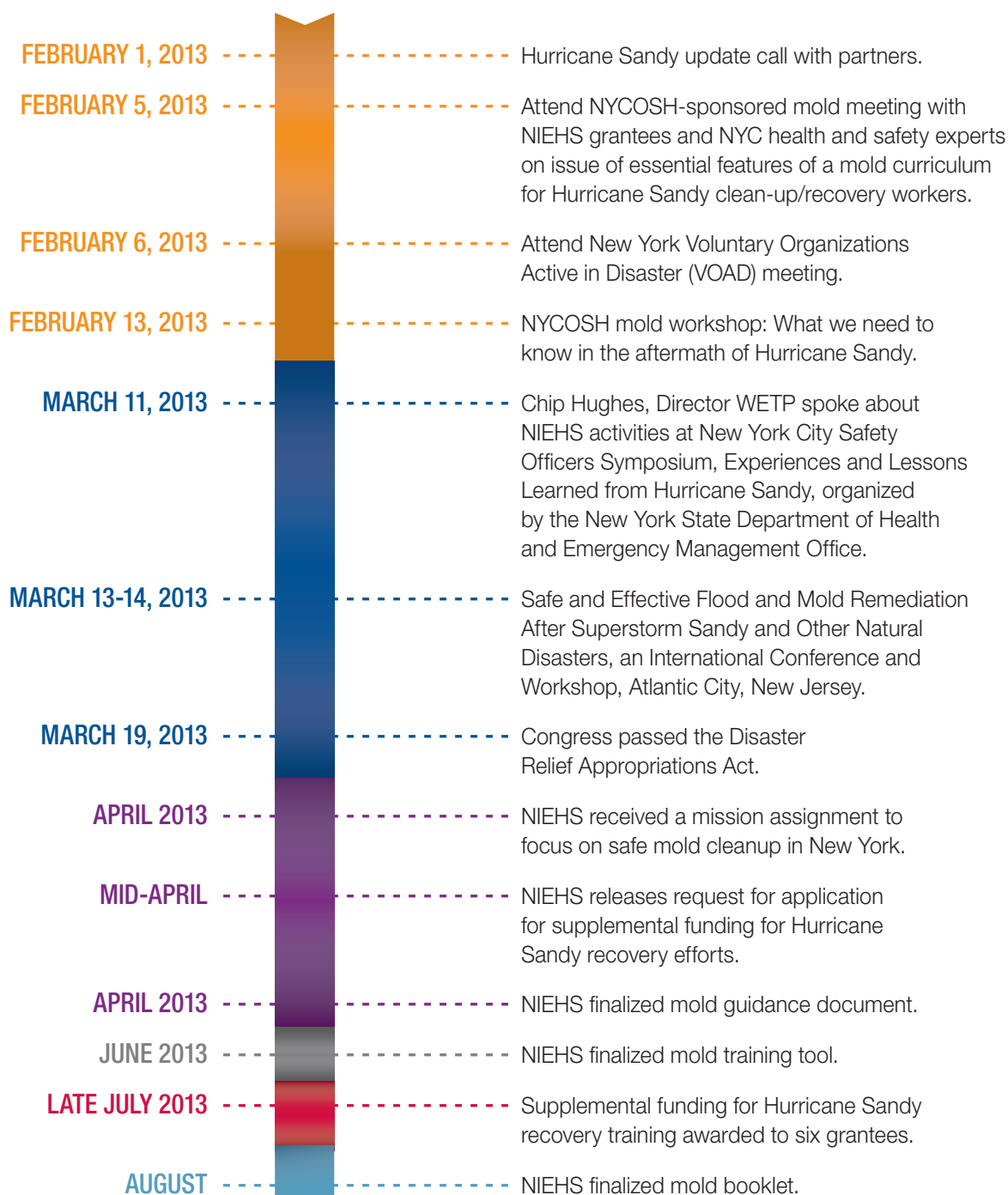
155,000
workers
trained



> Timeline Associated with the Activities



AS EARLY AS NOVEMBER 1	Requests came into the Clearinghouse for hurricane booklets. The booklet was quickly updated to include the hazards of working in cold weather.
NOVEMBER 11, 2012	Congressional demands for strong OSHA enforcement.
NOVEMBER 13, 2012	New York City asbestos abatement cleanup procedures issued for buildings affected by the hurricane.
NOVEMBER 14, 2012	NIEHS grantees began requesting permission to reprogram funds for Hurricane Sandy activity.
NOVEMBER 19, 2012	OSHA lets FEMA know of need to protect clean-up workers and volunteers and requests FEMA bring in NIEHS to train.
LATE NOVEMBER 2012	Grantees began deploying trainers (using reprogrammed funds) to the area to assess training needs in New York and New Jersey. Deployments began around November 21, 2012.
NOVEMBER 20, 2012	NIEHS-OSHA conference call on Hurricane Sandy efforts.
NOVEMBER 27, 2012	Congressional request for broad oversight on cleanup of mold and environmental toxins after Hurricane Sandy.
DECEMBER 6, 2012	NYCOSH hosts Protecting Workers, Volunteers and Residents: Health and Safety and Wage-and-Hour Issues in Hurricane Sandy Clean-up Efforts.
DECEMBER 17, 2012	New Jersey Work Environment Council hosts forum to protect workers and the environment.
DECEMBER 2012	Clearinghouse hires training outreach coordinators for New York and New Jersey.
LATE DECEMBER 2012	NIEHS received a mission assignment at the end of December to provide health and safety training to recovery workers and their supervisors and to provide technical assistance as needed.
JANUARY 4, 2013	NIEHS holds meeting with grantees and others involved in the NIEHS New York mission assignment for training.
JANUARY 14, 2013	Clearinghouse analysis of OSHA Industrial Hygiene and Health Response Team Sampling Results as posted on the OSHA Website.



During the recovery of Hurricane Sandy, NIEHS WETP and the National Clearinghouse have been involved in coordinating training operations, developing or updating training tools and other resources, outreach and developing partnerships, and site visits to assess hazards associated with the cleanup work.

> Coordinating Training Operations

■ Grantee Efforts and Training

Public employees, construction workers, day laborers, homeowners, and volunteers play a huge role in the cleanup of the aftermath of Hurricane Sandy. They were, and still are, involved in debris removal, gutting, mucking, and mold remediation. In order to protect the health and safety of those who are cleaning up the aftermath of Hurricane Sandy, NIEHS WETP grantees have been actively involved in training. Curricula have been developed focusing on safety and health related to mucking, gutting, and mold remediation. Courses taught also included disaster safety awareness, OSHA 10, and courses tailored to particular tasks and populations. Courses have been taught in both English and Spanish. In addition, train-the-trainer courses have been developed to train bilingual trainers.

Training requests started in January 2013, and as of June 30, 2013, nearly 1,000 people have been trained by NIEHS awardees, with nearly 2,500 contact hours.

Initially, training covered material in *Safety Awareness for Responders to Hurricanes: Protecting Yourself While Helping Others*. Significant requests for training came from AmeriCorps, New York Cares, and World Cares Center. Other organizations making requests included New York City Housing Authority (NYCHA), Habitat for Humanity, VOAD (CWS), People's Recovery Summit, New Jersey Work Environmental Council (WEC), FEMA, and a number of labor unions. The courses most requested were Hurricane Sandy Recovery, Protecting Yourself While Mucking and Gutting. Other courses include New York Hurricane Sandy "Recovery Tools and Training", and mold remediation and awareness. Safety Awareness was mainly taught to NYCHA workers who were doing door-to-door surveys.

~1,000
trained

~2,500
contact hours



NIEHS awarded supplemental funding to the International Union of Operating Engineers Training Fund (IUOE), the New Jersey/New York Hazardous Materials Worker Training Program at Rutgers, the Steelworkers Charitable and Education Organization (USW), SEIU Education and Support Fund, University of Massachusetts Lowell, and the International Chemical Workers Union Council (ICWUC) to continue to provide worker safety and health training for those involved in the cleanup of Hurricane Sandy. These grantees received funding to train volunteers, members of the public works, or those involved in the response and recovery of Hurricane Sandy.

NIEHS grantee trainers have shared the NIEHS Response to Hurricane booklets and factsheets with those cleaning up the impacted areas. Grantees have collected training evaluations at the conclusion of these programs to assess the quality of the training. The evaluation forms were available in both English and Spanish. In some of the training programs, an NIEHS roster form was used to enable follow-up of clean-up workers in the future.

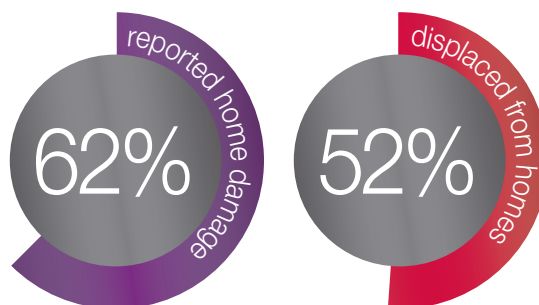
■ National Clearinghouse Efforts

The National Clearinghouse supported the coordination of existing grantees and others who have been involved in safety and health training of recovery workers and volunteers.

The Clearinghouse also has employed two training outreach coordinators, one in New York and one in New Jersey. The training outreach coordinators have been invaluable in making connections with target populations for training and identifying training needs. Many of these target populations have inadequate information on safety and health and lack access to training.

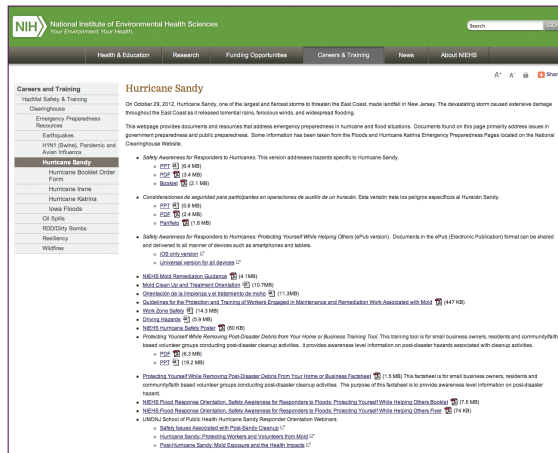
In addition, the Clearinghouse has provided technical support for the ongoing response efforts. These include:

- Analyzed 268 surveys for Local 100 of the Transit Workers Union (TWU) to assess how their members were affected by Hurricane Sandy. Of the respondents, 62 percent of the respondents reported home damage, 52 percent were displaced from their homes.
- Analyzed the OSHA Industrial Hygiene Team Sampling Results that were posted on the OSHA web site 1/10/13.
- Performed site visits and observed AmeriCorps work crew and developed follow-up evaluation.
- Drafted mental health training outline for proposed TWU Local 100 training project.



Training Tools and Other Resources

Hurricane Sandy Web page



To disseminate worker safety and health training information in a fast and efficient manner, the Clearinghouse created a Web page (<http://tools.niehs.nih.gov/wetp/index.cfm?id=2472>) dedicated to Hurricane Sandy. The Web page contains resources and training materials, such as the *Safety Awareness for Responders to Hurricanes, Protecting Yourself While Helping Others* booklets, the NIEHS Disaster Recovery Mold Remediation Guidance and training tool that would help protect recovery workers and volunteers as they prepare to clean up the aftermath. The Web page also contains federal, state, and county hurricane and flood resources and links.

SharePoint



The Clearinghouse developed a SharePoint site with training materials and supporting resources, which is available at: https://sharepoint.niehs.nih.gov/wetp_training_response/SitePages/Home.aspx. This site is accessible by all NIEHS WETP grantees with an NIEHS account and will be maintained throughout the supplemental grant period. The site contains materials that have been developed, such as fact sheets, background documents, guidance on various hazards, pictures, and reports.

■ Hurricane Sandy Recovery Training Tool

NIEHS WETP adapted the *Safety Awareness for Responders to Hurricanes, Protecting Yourself While Helping Others* booklet and training tool to address Hurricane Sandy specific hazards. This booklet is also available in Spanish. An ePub version for mobile phone and tablets has been made available. The general *Safety Awareness for Responders to Hurricane* booklet is also available in Spanish and Vietnamese. These booklets can be ordered for free on the Clearinghouse website.

The table below shows how many booklets in each language have been ordered as of July 2013 from the Clearinghouse and shared with recovery workers, homeowners, and volunteers.

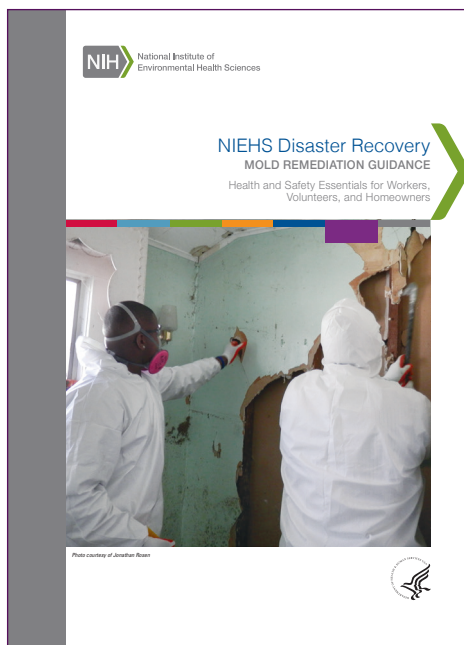
Booklet Language	Number Shared
English	35,945
Spanish	15,781
Vietnamese	290

35,945
English

15,781
Spanish

290
Vietnamese

■ NIEHS Mold Remediation Guidance and Training Tool



Mold is one of the most widespread hazards that hurricane and disaster cleanup workers have encountered. As a result, the Clearinghouse developed the Mold Remediation Guidance, PowerPoint presentation, and booklet. These are key health and safety resources for participants in hurricane disaster response and cleanup activities. The materials address identification and control of hazards from mold as well as related hazards such as asbestos, carbon monoxide, raw sewage, and safety hazards. Materials were peer reviewed before being published. Organizations may use this guidance to aid in the development of a mold remediation awareness level course or other awareness level materials such as fact sheets and table-top activities.

> Outreach Efforts and Partnerships

NIEHS WETP and its grantees have reached out to, and formed partnerships with, unions, volunteer organizations, communities, and city/county agencies to protect the health of those cleaning up disaster sites.

The National Clearinghouse has made significant inroads with the Volunteer Organizations Active in Disasters (VOAD) groups and its Long-term Recovery Groups committee. The outreach coordinators have been educating the volunteer organizations on the training that WETP grantees can provide, and on the importance of providing quality safety and health training, hazard assessment, personal protective equipment (PPE), and respiratory protection for the volunteers.

In New Jersey, federal outreach and coordination efforts have included working with the Department of Health and Human Services, Department of Homeland Security, Occupational Health and Safety Administration, Environmental Protection Agency, Federal Emergency Management Agency, and Department of Housing and Urban Development.

Activities have included participating on the New Jersey DOH Environmental Task Force. Agenda topics included development of mold guidelines, West Nile concerns resulting in part from the more than 16 deaths in New Jersey last year. Also of concern is the impact of storm debris on the environment.

Contact with the New Jersey Governor's Office of Volunteerism has resulted in support and a training partnership. Several AmeriCorps trainings have been conducted. Hundreds of volunteers are expected to come into New Jersey through the end of 2014 to assist with recovery efforts and the training outreach coordinator's role will continue to support collaboration between NIEHS and these volunteer groups. Grantees have also worked with volunteer organizations—some with a presence in New Jersey, some with a presence in New York and others in both states—including Occupy Sandy, World Cares Center, AmeriCorps, Yellow Team, Boots on the Ground, Midland Beach Alliance (400 homeowners), Feeding Families, New York Cares, existing NIEHS grantees, and labor unions in the impact zone.

Agenda topics included development of mold guidelines.

Also of concern is the impact of storm debris on the environment.



An effort was made to reach public employers and unions who received federal grants to hire unemployed workers to do storm related work such as debris removal. This resulted in training initiatives with the New York City Housing Authority and the New York City Department of Homeless Services. However, most of the 5,000 workers employed under this program were not reachable.

> Site visits

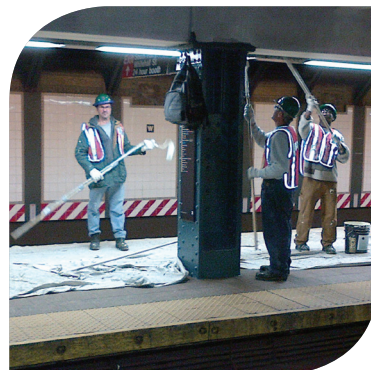
To better assess the conditions where cleanup efforts were taking place, outreach coordinators and grantees conducted site visits to various impact sites in the two states, including Garretson Beach, N.J., Far Rockaway, N.Y., and Staten Island, N.Y.

Time was spent observing and assessing the work related hazards involved in mucking, gutting, and mold remediation at several homes and businesses. Photographs and notes of the site visits were put into a report. Interviews with clean-up field managers and workers helped inform these inspections. Additionally, the NIEHS booklets and factsheets were distributed and onsite training was provided.

■ Major findings from the site visits include:

Response and Recovery Workers

- An assessor-specific health and safety workshop would be beneficial. The home assessments focused more on evaluating the number of volunteers and equipment needed to do the job. There is a need to improve assessment of hazards and particularly the extent of mold contamination, to improve selection of PPE and respirators and plan for containment such as ventilation and isolation.
- A large amount of the cleanup work is being done by volunteers, many of whom have little to no experience in cleaning up hazardous materials. Volunteers were mostly organized by non-governmental, community, and faith-based organizations and most had inadequate access to protective equipment, respirators, and information about the hazards that they encountered as they performed clean-up and mold remediation in residences.
- None of the volunteer organizations had the capacity to do containment and ventilation.
- Volunteers were not medically screened, fit tested, or provided adequate training for using respirators. Most organizations were provided disposable N-95s and typically they were not available in a variety of sizes and models to accommodate fit requirements of users.
- On the weekends, volunteers often worked for only one day, making training particularly difficult.
- A system of registering volunteers to track any future health concerns was not in place.
- Some residents speak Spanish. It would be useful to have a Spanish speaker along on site visits and to distribute Spanish copies of the NIEHS booklet.



Site Dangers and Risks

- Extensive mold growth was found in houses during the on-site visits.
- Crawlspaces were often contaminated with debris, muck, and mold. They are usually dark and an additional, battery powered light should be part of the assessment and clean-up equipment, since flashlights are not effective in these spaces.
- Hardhats in crawlspaces could be cumbersome, making it more difficult to move around in a crawlspace, but will provide head protection.
- Fall hazards exist mainly through hatchways into crawlspaces, and if subflooring has been removed, between joists. A distance of 4-5 feet exists between the top of the floor joists and the concrete floor of crawlspaces.
- Assessment crews should be equipped with voltage meters and other electrical current detection equipment such as a Fluke, to assess whether exposed wiring is energized.
- Debris piles existed all over the neighborhoods, indicating the extent of homeowner clean-up efforts.
- Some cleanup crews were concerned about mental health impacts of the work.

Other issues

- Input from a focus group of trained volunteers documented alternative means to training may include demonstrations by team leaders, crash courses on PPE, cheat sheets on essential issues, YouTube videos sent to smartphones or on a trusted website, delivery of workshops before volunteer sign-up, text messages, or small comic books on safety and health.

■ Major recommendations for training based on the site visits include:

General Training

- Training should review when work is beyond the capabilities of the volunteers and when professionals should be brought in. For example, disconnecting a radiator to remove a moldy floor would require a licensed plumber. It would also be very helpful if the team leaders had information for homeowners on how to obtain such services. At a minimum, a referral might be made to a FEMA case manager.
- There is a need for a 45-60 minute training module for weekend volunteers. Because their time volunteering is limited, it is not realistic to expect them to sit through several hours of training. Developing a train-the-trainer for the weekend workers and a more comprehensive train-the-trainer for people deployed for a week or more would fulfill an important need. This concept should be explored.
- A laminated card with basic health and safety information should be produced as another handy reference to promote safety and health in the field.
- Volunteers need clear, concise information and training to recognize the hazards posed by demolition work.
- Hazard communication should be emphasized for volunteers using any product for cleaning or sealing, including use of safety data sheets, hazard control measures, respirators, and PPE.

Mold

- Include detailed information on how to properly assess mold contamination and also assess potential hazards that the work crew will be exposed to on a site-by-site basis. This could be done using the small group training method and providing a worksheet and photos of contaminated homes. For example, the small groups could identify hidden places to evaluate mold, how to properly inspect for it, and how to use a moisture meter. This section could also address how to determine when professional mold remediators should be brought in and the tips for selecting them. The use of wet methods and plastic barriers to contain extremely moldy areas would be beneficial.
- There was a fairly high level of concern about health effects of mold. Therefore, it is very important to educate the leadership and volunteers about mold characteristics, health effects, exposure and exposure controls.
- There was confusion about use of fans for ventilation and plastic sheeting to isolate contaminated areas. It would be helpful to teach how to use and create negative or positive pressure, and how to determine what is needed. This could also be a group activity.
- The leadership was not knowledgeable about recognizing mold contamination on the exterior surfaces of structures. This should be addressed, while acknowledging that mold under siding or wood exposed to flooding poses less of a health hazard and can be addressed later in the restoration process.

PPE and Respirators

- Emphasize hazard communication for volunteers using any product for cleaning or sealing, including use of safety data sheets, hazard control measures, respirators, and PPE.
- There is no medical screening or fit testing and seal checking of respirators and lots of confusion about change out schedules for cartridges. This should all be covered in the mold training, including a review of OSHA requirements and the basis for them. Also, sharing copies of a medical screening tool and demonstrating qualitative and quantitative fit testing methods.
- Many had inadequate access to PPE and respirators.



Other

- The Rapid Repairs Program should provide training to the contractors it deploys so that they don't install equipment on top of moldy building materials that need to be remediated or use porous materials that inspire mold growth such as plywood. FEMA's strategy for this program was to quickly provide homeowners with basic equipment such as hot water heaters and furnaces so that they could shelter in place. Further, placing such equipment on moldy building structures requires removing the equipment to complete the mold remediation.
- Equipment issues that need to be addressed include obtaining industrial sized drying fans and HEPA vacuums.

ISSUES OF NOTE IN THE RESPONSE TO HURRICANE SANDY

- Supplemental funding to assist with recovery from the storm took significantly longer than in previous disasters. While there were things that could be done immediately and with reprogrammed funds, the delay in supplemental funding resulted in a gap during which little training was provided. This delay has potentially jeopardized relationships. NIEHS grantees were on the ground touting an ability to provide training. Long-term recovery groups were looking for detailed information about the training that could be provided by each grantee. But due to the delays and a level of funding less than anticipated, it took several months for grantees to specify how reduced funding would impact their plans with the supplemental funding.
- While NIEHS received a mission assignment to work in New York, it did not receive one to work in New Jersey.
- A large number of those performing cleanup in the aftermath of Hurricane Sandy were volunteers. This presented a new set of challenges for WETP.
 - The volunteer organizations were not covered by OSHA requirements due to a lack of a recognized “employer – employee” relationship with the volunteers. WETP encouraged the organizations to voluntarily comply with OSHA, but that does not bear the same influence as the potential for an OSHA inspection and violation.
 - Traditionally, WETP has focused on worker training. Volunteers are doing the same work, typically without compensation, or in the case of some programs such as AmeriCorps, for a stipend.
 - The volunteers are not represented by unions that have a long tradition of advocating for appropriate safety and health protections and providing resources and training.
 - Many of the volunteers are working people from the working class neighborhoods hardest hit by the storm. They have stepped forward to assist their communities. However, there is a certain amount of tension regarding what is volunteer work versus what should be paid construction work.
 - Weekend warriors included tens of thousands of volunteers who worked for a single day on weekends. With this limited amount of service, spending an appropriate amount of time on training is clearly difficult. There was no evidence that the volunteer organizations had any capacity to assign work based on the skills and health and safety preparedness of the volunteers.
 - Volunteers who contributed a week or a month did not necessarily receive comprehensive safety and health training either. The volunteer organizations lacked a system for evaluating previous training and experience of volunteers and mainly used verbal orientation and PowerPoint to cover work tasks, procedures, and health and safety.

- Volunteer organizations provided respirators that were donated and some used funding they raised to purchase the equipment. However, they lacked any capacity to do medical screening or fit testing. The training did not include actually teaching volunteers how to properly don, doff, clean, and store respirators. The selection of respirators was typically limited to the make and model donated or purchased.
- The personnel assigned by volunteer organizations to supervise the clean-up work often lacked knowledge in recognizing hazards such as building materials with friable asbestos or lead paint.
- It is clear that volunteer organizations will continue to play a significant role in disaster response and preparedness. Building relationships with these organizations will be imperative to protecting the health and safety of volunteer workers and improving volunteer organizational capacity to protect volunteers.
- The train-the-trainer model may be used to build capacity within these organizations as well as providing advanced training to volunteer organization field supervisors.
- Municipal employees, whose employers would not provide training or paid time off for the union to provide training, were asked to perform hazardous work.
- There was no need for training of the building trades whose members were largely pre-trained and able to perform cleanup work.
- WETP has encountered obstacles to reaching day laborers employed by non-union contractors involved in a variety of clean-up work. Largely, the employers have not shown an interest in WETP training and day laborers are usually not in a position to independently attend WETP training. An exception has been through the work of Make the Road New York and other new labor organizations.

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Appendix A: Hurricane Sandy Supplements

Grantee	Project Description	Partnerships/ Collaborations	Types of Courses
Rutgers (formerly UMDNJ)	Rutgers-SPH will continue to provide outreach to organizations in NJ and NY. Rutgers-SPH will provide an expanded 10-hour OSHA Construction (OSHA 10+) training for volunteers, public works, and others who have an active role in the response and recovery to disasters such as Superstorm Sandy. Rutgers-SPH will provide a 4-hour disaster safety awareness training for workers, Rutgers-SPH will collaborate with NYCOSH and the World Cares Center in NYC to provide one 21-hour train-the trainer program for 10 individuals who will subsequently conduct 4-hour disaster safety clean-up and mold remediation training. Rutgers-SPH will provide one 14-hour mold awareness and safety procedures module for a train-the-trainer program with and for members of the International Chemical Workers Union Council. NYCOSH will work with World Cares Center and Rutgers-SPH to develop a 3 day (21 hour) train-the-trainer curriculum dealing with safety and health of muck and gut operations for the staff of World Cares Center and a 4-hour course for volunteers dealing with the safety and health issues of muck and gut operations. The World Cares Center will collaborate with Rutgers-SPH and NY COSH to develop a three-day (21-hour) train-the-trainer course in mold clean-up and remediation. MDB, Inc. (National Clearinghouse) will provide outreach services for the NJ/NY Center.	Rutgers School of Public Health, NYCOSH, WorldCares, NY Disaster Interfaith Services ICWUC	10 hour OSHA; 4 Hour disaster Safety Awareness; Mold Awareness; Mold cleanup and remediation;
ICWUC	The program will reach 1,290 Muck, Gut, and Mold remediation workers and volunteers in 86 sessions (3,870 contact hours), the trainer development class will have 22 trainers in 3 classes (880 contact hours and most trainer will take at least 2 classes). In addition the web based program will reach an average of 30 people per week for approximately 40 weeks in the first year (20 minutes average) for an additional 400 web based contact hours. Over the last 25 years, the ICWU Center and its union Consortium has built a nationally recognized HAZMAT training program specializing in chemical emergency response programs to protect collateral duty emergency responders. The Consortium members are: ICWU, IAM, UFCW, Coalition of Black Trade Unionists, AFT, American Federation of Government Employees. Our Consortium partner, CBTU will delivering some of these awareness classes as Worker/Community Disaster Preparedness programs. Local Sandy training and outreach in New Jersey (primarily Ocean. Atlantic and Cape May Counties)	ICWU: AFGE; AFT; CBTU; IAMAW; IAFF; MDB Inc.; World Cares Center; NY Cares; CSEA; UMDNJ; Washington AmeriCorps; TNEC; Cape May County NJ; NLC; SEIU; IBT; NJ WEC	Sandy Awareness, Sandy Trainer Development, Sandy Web Training

Grantee	Project Description	Partnerships/ Collaborations	Types of Courses
USW	<p>Certify Bilingual OSHA Trainers for Union and Community Organizations in NY-NJ. Producing a group of trained, bilingual OSHA certified trainers. Bilingual Train-the-Trainer on Mold and Muck & Gut. TMC's proposed program will conduct two additional week-long train-the-trainer courses to develop bilingual trainers for MRNY and NJ Communities United. Direct OSHA 10-hr training for Spanish-speaking Day Laborers. Direct Health and Safety Training for NY-NJ residents and organizations in need. Working with the area staff of the WETP National Clearinghouse as well as the NJ Work Environment Council, a NJ-based labor-environment coalition of 70 unions and environmental groups, we will fulfill as many training requests as possible on the widest range of courses—from back-of-the-truck presentations on mold to 40-hour emergency response courses. Through Dillard University, work closely with these environmental justice (WEACT, NJEJA) and training organizations (CBTU) to:</p> <ol style="list-style-type: none"> 1. assist in the outreach and recruitment of the selected target population for training activities, and 2. build the capacity of these organizations to respond to future threats. The training plan includes Train-the-Trainer and Worker Health and Safety courses that will be used to train instructors. Course materials will be distributed including those adapted specifically in response to Hurricane Sandy. By the end of the first year, we will have trained eighty (80) residents, one hundred and thirty (130) volunteers, two hundred and seventy (270) minority and immigrant workers, and forty (40) business owners. We will also have trained community-based organizations to develop their capacity to respond to this and future disasters and react to the ongoing threat. This work creates a large cadre of trained people and builds a pipeline for the continuation of training through the community-based organizations. Even when our project is complete, community-based organizations will be able to continue the training. 	<p>New Labor; MDB, Inc.; Make the Road New York; NJ Communities United; National Day Laborer Organizing Network (NDLON); IBT 237; Center for the Biology of Natural Systems; Tony Mazzocchi Center; Work Environment council; WEACT for Environmental Justice of Manhattan, NY; the Coalition of Black Trade Unions; New Jersey Environmental Justice Leadership Alliance</p>	<p>OSHA 510; OSHA 500; Train the Trainer; OSHA 10 Hour Construction; 24 Hour HAZWOPER; Muck and Gut; Mold classes. Certified OSHA trainer; Site Specific ; Train the Trainer;</p>

Grantee	Project Description	Partnerships/ Collaborations	Types of Courses
UMASS- Lowell	<p>TNEC/CSEA's Sandy Supplement effort will have three core efforts.</p> <ol style="list-style-type: none"> 1. CSEA will develop a Permit Required Confined Spaces (PRCS) curriculum to train its peer trainers who will then train CSEA members who are the cleaners, janitors, laborers and public works employees that are called up to operate, maintain and clean up the physical plant where state and local government operations take place. Basements, crawl spaces, utility vaults, pits and other confined spaces quickly fill up with water, released chemicals and mixed debris. CSEA members need PRCS training because non-permit spaces instantly become permit spaces and permit space become more complicated as the flood waters rise. These spaces can become filled with muck, debris, and mold. To address this, CSEA will provide a permit required confined space train-the-trainer on Long Island focused on CSEA members from New York City, Long Island and other Sandy affected areas. Also, CSEA and MDB will collaborate to develop a pocket guide for CSEA members required to clean-up disaster debris. CSEA will establish capacity to have peer-trainers provide high quality and relevant health and safety training to CSEA members who are currently engaged in or may be engaged in such activities. 2. TNEC/CSEA trainers will participate in efforts coordinated by the International Chemical Workers Union Center for Worker Health & Safety Education to develop and modify mold curriculum within muck and gut training and to hold a training of trainers to ensure competency in delivering this curriculum in the most effective manner under disaster conditions and settings. Participating TNEC/CSEA trainers will then provide this training to other CSEA and TNEC trainers, establishing capacity to meet future disaster-related training needs. 3. Work with MDB, Inc. to help facilitate NIEHS WETP coordination of Hurricane Sandy related recovery and rebuilding health and safety efforts, and efforts to ensure resilience in preparing for potential future disasters. 	MDB, Inc.; ICWUC	<p>Permit Required Confined Space</p> <p>Muck and Gut and Mold Remediation; Disaster Debris Cleanup</p>

Grantee	Project Description	Partnerships/ Collaborations	Types of Courses
SEIU	<ol style="list-style-type: none"> 1. Building Health and Safety Resilience and Preparing for Future Disasters. Target audiences for this 4-8 hour training are union members and leaders, front-line workers and supervisors and community members. This training will be aimed at organizations with some experience with disaster preparedness, but lacking health and safety and front-line involvement. 2. Introduction to Health and Safety Resilience and Preparing for Future Disasters. Target audiences for this 1-2 hour training are union members and leaders, front-line workers and supervisors and community members at organizations just beginning to understand the need for resiliency and preparedness. 3. Health and Safety Awareness for Recovery Work (Muck and Gut) Health and safety awareness training related to the recovery and clean up after Hurricane Sandy for workers and volunteers (including occupants) doing muck, gut and other cleanup activities. 	MDB, Inc.; 1199 SEIU United Health; Episcopal Health Services, Inc. (letters of support)	TtT Health and Safety Awareness for recovery work; TtT Building health and safety resilience; TtT health and safety resilience for future disasters.
IUOE	<ol style="list-style-type: none"> 1. Community-based training. The NTF will partner with IUOE local unions in the FEMA declared major disaster states to offer its members and members of the community awareness training on mold, as well as other hazards the community is facing as a result of Hurricane Sandy. 2. Training for underserved populations. The NTF will provide two 10-hour OSHA Construction Industry Outreach courses. to an underserved population in the FEMA declared major disaster states that includes generator and power distribution hazards awareness. 3. Build an alliance with the West Virginia Army National Guard (WVARNG) to have a point of contact (POC) at the NTF that they can call upon when they are deployed to a disaster site as they have been during Hurricane Sandy. This includes pursuing the development of a Memorandum of Understanding (MOU) with the WVARNG. The Alliance will also create a generator and power distribution hazards training manual that can then be delivered to WVARNG members, operating engineers, and to conduct community outreach. 4. Create a computer app to train on mold remediation to be made available to all cleanup participants. The app will be a cross-platform for Android/iPhones/iPads or other mobile devices and web-based for traditional computers. The NTF's goal with this innovative product is to provide end users that typically are not able to take advantage of training with a means of easily accessing the knowledge of persons with years of experience and training available to traditional workers. 	West Virginia Army National Guard (no letter of support)	Mold clean-up, mucking and gutting; 10 hour OSHA; generator hazards; Just in Time mold training App