

# **NIEHS Hurricane Katrina Response**

## **Worker Safety and Health Training Overview**

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### **Scope**

This document outlines NIEHS safety and health training resources available and, in some instances being provided for responders and workers performing recovery and cleanup operations in the four-state Gulf Coast region (Alabama, Louisiana, Mississippi and Texas) impacted by hurricanes Katrina and Rita. It reviews three separate training resources:

1. Awareness level training
2. OSHA HAZWOPER standard related training
3. HAZWOPER training

### **Background**

Since its inception in 1986, the NIEHS Worker Education and Training Program has trained over a million workers to safely respond to hazardous waste emergencies on the roads and rail and to work on hazardous waste sites, using the OSHA HAZWOPER standard, 29 CFR 1910.120, as the basis. The awardees of this program developed and delivered the official safety awareness course for workers at Ground Zero after the attacks of 9-11-01. They also developed the first course to train workers to decontaminate facilities after the anthrax attacks of 2001.

The training at Ground Zero did not occur until 3 months after the towers fell, which was too late to significantly impact the safety culture at the site. Consequently, Mt. Sinai Medical School's WTC Screening Project has documented that nearly half of the workers from Ground Zero who have participated in the screenings have continuing health problems from exposures at the site.

To prevent a repeat of the slow start at Ground Zero, NIEHS awardees worked with the OSHA Training Institute to develop a 16-hour Disaster Worker Course that provides an "all-hazards" approach for responders to disasters, particularly skilled support personnel as identified in Homeland Security Presidential Directive (HSPD) #8. To prevent a repeat of the health problems that have occurred among WTC responders, it is critical to see the training of cleanup workers in the Gulf as a long-term commitment to delivering a range of effective training that is tailored, as much as possible, to the specific worker populations and the hazards they face.

### **Hurricane Katrina**

Hurricane Katrina made landfall on the morning of August 29<sup>th</sup>. NIEHS WETP produced a PowerPoint hazard awareness presentation called, "Protecting Yourself While Helping

Others” on September 1<sup>st</sup>. OSHA’s Health and Safety Annex to the National Response Plan was formally activated by FEMA on September 11, 2005. WETP has a formal Emergency Support Activation Plan that is integrated into the OSHA Annex and addresses worker training. WETP was formally identified as a coordinating agency in the Annex and in the draft Hurricane Katrina Worker Health and Safety Plan that was issued by OSHA in draft on September 22, 2005 and then formally on October 8, 2005. The agency also issued a draft Katrina sampling plan on October 7<sup>th</sup>.

The final version of the OSHA HASP contains the following training requirements

*All agency and contractor personnel engaged in response operations must be trained to recognize and avoid hazards. This training is composed of several elements:*

- *General training for disaster site workers*
- *Site-specific training*
- *Task specific training, including any mandated training requirements*
- *Pre-deployment and pre-job briefings*

*Site-specific training includes an overview of conditions specific to the locales where the employee will be deployed. Task-specific training includes items such as hazard communication, PPE, use of tools, safety at elevations, etc. Training that is mandated by various agencies, such as OSHA, EPA, USCG, DOT, etc., shall be provided in accordance with those agencies’ guidelines.*

*Pre-deployment and pre-job briefings are conducted on a daily basis by the worker’s immediate supervisor to cover the day’s work plan.*

*Employers (agencies and contractors) shall maintain records of employee training available for inspection by agencies having jurisdiction. Training records include documentation such as, but not limited to, training certificates, attendance rosters, course curriculum matrices, etc. Employers shall provide competent and qualified persons as required by various standards.*

*Training activities will be coordinated with the National Institute of Environmental Health Sciences (NIEHS), OSHA’s Office of Training and Education, and OSHA’s Ed Centers.*

WETP received a mission-assignment for training from OSHA on October 5, 2005. The language below is taken directly from the assignment:

*NIEHS is tasked with developing course materials to train trainers, identify training locations, deploy trainers, and deliver training to target populations of federally supported responders in the Katrina response zone. In conducting this tasking, DOL/OSHA will provide NIEHS with contact information at the Joint Field Offices to coordinate these training activities with the other Federal Agencies. NIEHS will award administrative supplements to its current Worker*

*Training Awardees to provide response orientation training to federal employees and federally-sponsored contractors engaged in hurricane recovery and remediation activities. In conjunction with OSHA, NIEHS WETP will develop a process to share and distribute relevant training and education materials through its web site and training distribution network within the Katrina response zone.*

The Safety Awareness power point and booklet put together is only for the emergency portion of the response. More detailed training must follow for those who continue to work in the area. Workers who enter the area after the emergency portion of the response is over require more detailed training as identified in the OSHA HASP.

## **1. NIEHS Katrina Site Hazard Awareness Orientation**

### **a. Introduction**

On September 1<sup>st</sup>, the NIEHS Clearinghouse for Worker Safety and Health Training developed a PowerPoint hazard awareness presentation that covered all of the pertinent government guidance available about safety and health hazards following the storm. This PowerPoint, “Protecting Yourself While Helping Others” was posted on the Clearinghouse website and updated several times. It was also translated into Spanish by the Center to Protect Workers Rights. A pocket guide was and continues to be printed by the Operating Engineers National Hazmat Program and other organizations that can accompany the training or be handed out separately. Orders can be placed electronically on the Clearinghouse website, [www.wetp.org](http://www.wetp.org). Several thousand copies have been mailed. These materials have been widely distributed with the clear understanding that there are no copyright issues. They are being used by FEMA, the Red Cross, other federal agencies, and private sector organizations like CNA Insurance. Kirkwood Community College has developed a version on a CD that contains key government fact sheets linked to the presentation. University of Alabama at Birmingham has a web-based version of the training created in Web-CT. Both Kirkwood and UAB are NIEHS awardees.

### **b. Importance of the Orientation**

These materials have been regularly updated from the latest hazard assessments by CDC, NIOSH, OSHA, the Army Corps of Engineers and other groups. With a WETP team on the ground now, more direct input to the training is taking place. This PowerPoint program, given its limited size, should not prove onerous for any group of responders to attend and trainers have been encouraged to tailor it to their specific audiences, increasing the effectiveness.

This orientation provides only hazard awareness training. It covers respiratory protection, for instance, with only recommendations about appropriate respirators for specific hazards in the Gulf. It doesn't cover how to do fit checks, the OSHA requirements for a respirator program or even the prohibition on facial hair. It notes the hazards of confined spaces, but provides no real training on how to ventilate or lockout a space or how to

perform a rescue. Consequently, this orientation must not take the place of more thorough safety and health training.

## **2. HAZWOPER Related Training**

### **a. OSHA Disaster Site Worker course (OTI 7600)**

#### **I. Introduction**

The OSHA Disaster Site Worker course (OTI 7600) and train-the-trainer course for instructors (OTI 5600) were developed jointly by OSHA and NIEHS primarily to provide adequate safety and health training to skilled support personnel identified in HSPD #8, a category of worker that OSHA allowed to be trained onsite with a site briefing of undefined length under the HAZWOPER standard.

The worker 16-hour course is designed to be an “all hazards” approach and includes the following required modules in the 16-hour worker course, with the suggested instruction time in parentheses:

1. Introduction/Overview (1.5 hours)
2. Incident Command System/Unified Command Systems (1.0 hour)
3. Safety Hazards (2.5 hours)
4. Health Hazards (2.0 hours)
5. CBRNE Agents (1.0 hour)
6. Traumatic Incident Stress Awareness (1.0 hour)
7. Respiratory Protection (3.5 hours)
8. Other Personal Protective Equipment (1.25 hours)
9. Decontamination (1.5 hours)
10. Final Exercise (0.75 hour)

#### **II. Importance of the Disaster Site Worker Course**

This is the first national course that provides safety and health training to non-traditional responders for both natural and manmade disasters. The inclusion of modules on incident command and traumatic stress make it particularly valuable. The mandate that students don and doff respirators and other personal protective equipment came directly out of the failure experienced at WTC. This course definitely addresses the inadequacy of skilled support training required under HAZWOPER. OSHA’s approach of granting two different cards for the course to encourage integrating this training with HAZWOPER and OSHA-10 training is laudable. These cards could ideally prove part of a system for badging at a disaster.

Although the course covers both natural and manmade disasters, the latter – acts of terrorism – tends to dominate, which means course materials are not as pertinent to Katrina as they should be. There is no reason to cover dirty bombs, nerve agents and anthrax in training in the Gulf region. This deficiency has been discussed recently by the

Curriculum Committee of the OSHA Training Institute Educational Centers. The UC San Diego center in Region IX has been attempting to “make the 7600 more responsive to a wider variety of disasters.” They provided the example of the San Diego County fire that destroyed 3000 homes, leaving many thousands homeless. The response “was slow and required a skill set not well covered in the 7600.”

The Director of the UC San Diego Extension, Carol Hosmer, made the following suggestion:

*The 5600 should be approached exactly as we approach the 500 and 501, as a train-the-trainer with the follow-on being a variable 10 or 30- hr course that teaches skills responsive to a particular disaster, whether that be terrorism, hurricane, fire, earthquake or other. In the face of a disaster, we don't have the luxury of time to teach the 7600 for 2 days and then also require students to sit another 1 1/2 days for their 10 hr cards. This is too much time. And, not enough disaster site workers already have, or necessarily need, a 10 hr construction card.*

The training is an OSHA elective course, having no basis in regulation, so there are limited incentives for contractors to have their workers trained in this course. This training is no substitute for HAZWOPER for learning critical skills. The 7600 course is aimed at providing training for those workers who may be engaged in the initial response to hazardous incidents, but it is not intended to address post-initial response training.

### **c. HAZWOPER related training programs from the WETP Awardees**

The NIEHS WETP training awardees have developed many HAZWOPER supporting training programs in accordance with WETP training program guideline requirements that support HAZWOPER operations such as confined spaces and mold. The following lists those courses that are available, some of which have already been provided in the response to the impacted region.

- OSHA 10 and 30 for General Industry and Construction
- Radiation
- Asbestos
- Confined Spaces
- Lead
- Bloodborne Pathogens
- Lock out/Tag out
- Process Safety Management (PSM)
- PPE
- Mold
- Workzone safety
- Chainsaw
- Chippers
- Confined space
- Fall protection
- Trenching/excavation
- Debris site hazards
- Building and structural hazards
- Demolition safety
- Material handling (forklifts, cranes, bobcats, loaders, etc.)
- Electrical
- Ergonomics
- Heat/cold stress
- Severe weather
- Silica awareness

- Chemical hazard communication

### 3. HAZWOPER training in the affected area

#### a. Introduction

Millions of workers and supervisors across the country have received HAZWOPER training, primarily because of the OSHA requirements. It is the most widely provided training that has pertinence to Katrina and it covers cleanup workers (per 29 CFR 1910.120(e), RCRA/TSD workers 1910.120(p), and emergency responders 1910.120(q)) who are exposed or who face the reasonable possibility of exposure to chemicals, biological agents, or radiological hazards during their work. HAZWOPER is clearly applicable to many conditions and sites in the Gulf cleanup, although the entire area is not and should not be considered covered by HAZWOPER. NIEHS WETP awardees have been developing and delivering state-of-the-art quality HAZWOPER training in accordance with a mandate under SARA since 1987. The WETP program is recognized as the leading HAZWOPER training provider in the nation.

The National Resources Defense Council in its September 2005 report on Katrina noted that:

- Federal officials identified at least nine oil spills of 10,000 gallons or more and 35 smaller spills resulting from Katrina, which have discharged more than 7 million gallons of oil;
- At least one Superfund site completely submerged in the New Orleans floodwaters, as did many other sites with hazardous materials on-site; and
- EPA found total coliform or *E. coli* levels in the floodwaters up to 75 times the level the agency considers safe for human contact.

#### b. Importance of HAZWOPER training

OSHA in its HASP clearly recognized the importance of HAZWOPER training with the following language:

*The cleanup of hazardous materials releases will be handled by properly trained and protected individuals in accordance with the requirements of 29 CFR 1910.120.*

The standard requires off-site core training and requires subsequent site-specific training, which is particularly critical for the flood-related hazards of Katrina. The NIEHS Katrina site orientation PowerPoint can be used as part of this site-specific training. OSHA has developed a draft document entitled “The Application of HAZWOPER to Hurricane Katrina Response and Cleanup Activities” that provides decision logic for determining if a response or cleanup in the Gulf would be covered by 1910.120. Concerns have been raised that this document could “seriously weaken” the standard. One hopes that in the final document, these concerns will be addressed.

## Protecting Workers

Harmful substances including heavy metals and unspecified chemicals are prevalent in the Gulf Coast region. The Army Corps of Engineers is planning one of the biggest environmental cleanups ever attempted: scraping miles of sediment laced with cancer-causing chemicals from New Orleans' hurricane flooded neighborhoods.<sup>i</sup> More than ten weeks after Hurricane Katrina, the extent and level of contamination has still not been clearly assessed.

Workers need more comprehensive safety and health training to protect them from the multitude of hazards they face during cleanup work. By and large, the time for simple awareness training has passed.

The OSHA HASP should be implemented, but it should be applied to all workers in the Gulf Coast region, not just federal employees and federal contractors. Workers performing cleanup work in the Gulf region are being exposed to the same or very similar hazards, regardless of who their employer is. And all workers should be provided with the safety and health protections afforded by the HASP. This is a complicated matter as states engaged in the Katrina/Rita response and cleanup efforts are states under Federal OSHA jurisdiction, which means that local, county and state government workers are NOT covered by OSHA standards. A special effort should be made to provide these workers with the training being provided to federal employees and federal contractors.

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<sup>i</sup> "Extreme cleanup on tap in New Orleans," *The Dallas Morning News*, November 6, 2005.