

OSHA's Roles and Activities in Protecting the Safety and Health of Workers during Disaster Response

**AHMP 2016 National Conference
August 29, 2016**

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OSHA's Mission

- Assuring the safety & health of America's workers by:
 - Setting and enforcing standards
 - Providing training, outreach, and education
 - Establishing partnerships
 - Providing compliance assistance



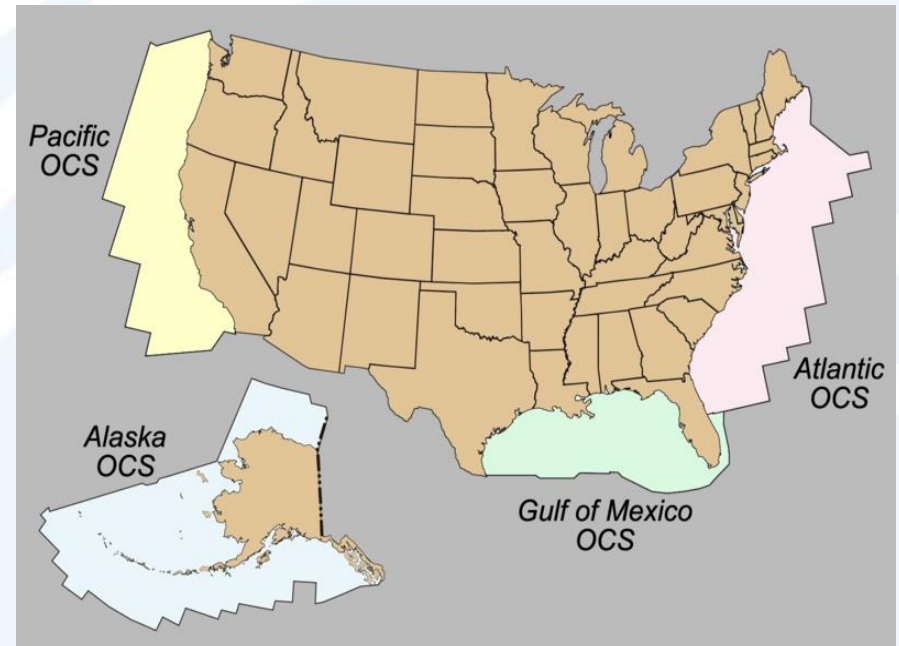
The Occupational Safety and Health Act of 1970 (OSH Act)

- Employers - responsible for “safe and healthful workplace” for employees
- Covers private sector workers through Federal OSHA or OSHA-approved State Plans
- State and local government workers have protections in State-Plan States



OSHA's Jurisdiction (Authority)

- Geographical Jurisdiction
 - States, Washington DC, Puerto Rico, USVI, American Samoa, Guam, N. Mariana Is., Wake Is., Johnston Is., OCS
 - U.S. Navigable Waters
- State-Plan States
 - State run plans that are “at least as effective as Federal OSHA”
 - Federal OSHA approves and monitors State Plans



Worker Safety & Health – Disaster Response

Why coordinated worker safety and health is important:

- Worker safety and health is a critical consideration during emergency responses, but is sometimes overlooked or seen as a low priority
- Protecting response and recovery workers - essential to successful response and recovery operations
 - The health and well-being of response and recovery workers can ensure that the victims themselves are cared for properly
 - Multiple-worker fatalities or injuries could disrupt the entire response effort
 - The need for a rapid response to an incident increases the risk that personnel may be deployed with inadequate information about the safety and health hazards
- When State, local, and/or Federal assets are overwhelmed, the NRF WSH Support Annex can provide coordinated technical assistance to help protect response and recovery workers



National Plans & Policy

- **National Response Framework (NRF)**
 - Response Operations
 - FEMA Mission Assignments
 - **NRF Worker Safety and Health (WSH) Support Annex**
- **National Disaster Recovery Framework (NDRF)**
 - Recovery Operations (may overlap with Response Operations)
- **National Contingency Plan (40 CFR 300)**
 - USCG/EPA Pollution Removal Funding Authorizations (PRFA)
- **White House National Security Council - Policy**

NRF WSH Support Annex

Coordinating Agency: DOL/OSHA

Cooperating Agencies: DOD, DOE, DHHS, DHS, EPA

■ **Technical Assistance and Support Activities**

- Worker Safety and Health Needs Assessment
- Health and Safety Plans
- Safety and Health Hazard Assessments
- Personal Protective Equipment
- Data Management
- Training and Communication
- Response and Recovery Worker Health and Medical Surveillance



National Response System (NRS)

- Over 35 years and over 30K emergencies per year
- Oil spill and hazardous substance release responses
- Support to Environmental Protection Agency and U.S. Coast Guard Federal On-Scene Coordinators
- National Oil and Hazardous Substances Pollution Contingency Plan (NCP) – 40 CFR Part 300

National Response System

- **National Response Team (NRT)**
 - Nationwide responsibilities for interagency planning, policy, and coordination for oil & hazardous substance pollution incidents
 - Representatives from 15 federal agencies, including DOL/OSHA
- **13 Regional Response Teams (RRTs)**
 - One for each of the 10 EPA federal regions
 - One for Alaska, one for Caribbean, one for Oceania
 - Develops regional policies for and ensures an effective, coordinated response among all levels of government and the private sector

Worker Safety and Health under the National Contingency Plan (NCP)

- **40 CFR 300.150 Worker Health and Safety**
 - (a) Response actions under the NCP will comply with the provisions for response action worker safety and health in 29 CFR 1910.120. The NRS meets the requirements of 29 CFR 1910.120 concerning use of an incident command system.
 - (b) In a response action taken by a responsible party, the responsible party must assure that an occupational safety and health program consistent with 29 CFR 1910.120 is made available for the protection of workers at the response site.

OSHA's Role Under the NCP

- **40 CFR 300.175 (b)(11)(ii)**
 - On request, OSHA will provide advice and consultation to EPA and other NRT/RRT agencies as well as to the On Scene Coordinator/Remedial Project Manager regarding hazards to persons engaged in response activities. OSHA may also take any other action necessary to assure that employees are properly protected at such response activities. Any questions about occupational safety and health at these sites may be referred to the OSHA Regional Office.

National Response Framework vs National Contingency Plan

National Response Framework

- Federal Emergency Management Agency (FEMA) lead
- Stafford Act
- State request and Presidential Declaration
- Natural Disasters and Terrorist Attacks
- Tax payer funded (DRF)

National Contingency Plan

- Environmental Protection Agency or USCG lead
- CERCLA / OPA 90
- Responsible Party and/or Oil Spill Liability Trust fund paid
- Releases of Oil and Hazardous Substances
- Responsible Party pays



OSHA's Roles in Disaster Response

- **Technical Assistance and Support**

- OSHA working within the Unified Command
- National Contingency Plan (NCP) and National Response Framework (NRF) responses to “all hazards”

- **Enforcement**

- Enforcement of OSHA standards to ensure that employers are taking necessary actions to protect employees from work-related safety and health hazards



OSHA Hazardous Waste and Emergency Response Operations (HAZWOPER) Standard

29 CFR 1910.120

- Employers - develop and implement written safety and health program, including:
 - Organizational structure and work plan
 - Site characterization, evaluation, and control
 - Site-specific Health and Safety Plan (HASP)
 - Safety and health training program
 - Controls: Engineering, Safe Work Practices (SWP), and Personal Protective Equipment (PPE)
 - Exposure monitoring
 - Medical surveillance



Types of Disasters

- Man-Made
 - Oil / Chemical Spills
 - Radiation Releases
 - Terrorist Attacks
- Natural
 - Hurricanes
 - Tornadoes
 - Earthquakes
 - Wildfires
 - Floods
 - Mudslides



Common Safety and Health Hazards in Disasters

- Falls (roofs, ladders, scaffolds, slips/trips/falls)
- Traffic (vehicles, yellow-gear, aerial lifts)
- Power tools (chainsaws, chippers, generators)
- Electrical (wires, power tools)
- Material handling (cranes, rigging)
- Environmental (drowning, insects, animals)
- Other (confined spaces, trenching)

Common Safety and Health Hazards in Disasters

- Heat and Cold Stress
- Asbestos
- Lead
- Oil and HAZMAT (all types of chemicals)
- Radioactive contaminants
- Biological contaminants (bacteria, viruses, fungi)
- Environmental (infection/disease from insects, animals, mold, etc.)

Deepwater Horizon Oil Spill Response

- Over 47,000 workers and over 6,400 vessels during peak
- OSHA - part of the coordinated federal response to ensure worker protection
- OSHA - “Role in the Response” report at www.osha.gov/oilspills



Fukushima Daiichi Nuclear Power Plant

- OSHA concerned with domestic impacts of potentially contaminated debris coming from Japan
- Ports of entry, airports, and mail/package handling facilities
- Various agencies monitored and assessed radiation levels



Hurricane “Superstorm” Sandy

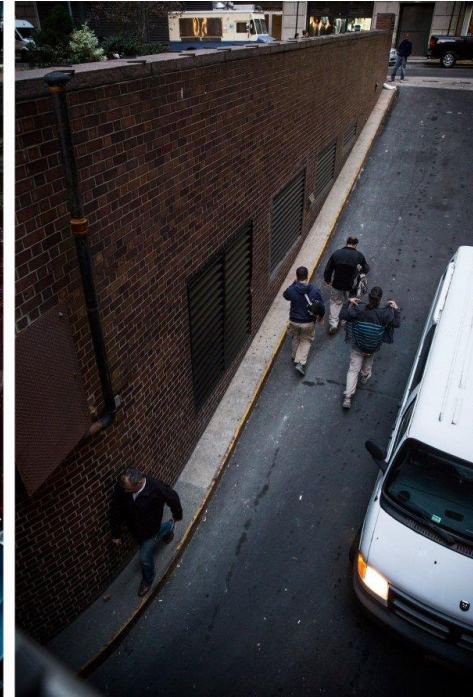
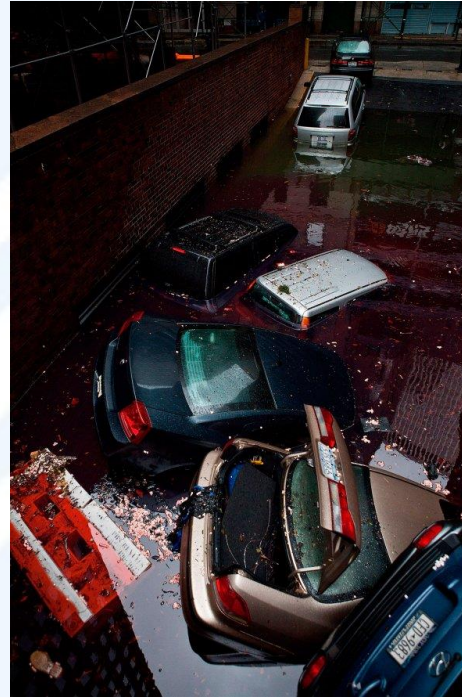
- Superstorm Sandy made landfall on October 29, 2012, near Atlantic City, NJ and affected over 20 states, from Florida to New England, with tropical storm force winds stretching far inland.
- The storm brought a destructive storm surge to New York and New Jersey on the evening of October 29th, flooding numerous streets, tunnels and subway lines in Lower Manhattan and other areas of New York city and forcing power outages in many parts of the city and surrounding areas.
- Extensive damage occurred in communities along the New Jersey, New York, and New England coast lines.

Hurricane “Superstorm” Sandy

- OSHA’s major activities included technical assistance, outreach, coordination and liaison, and training
- ASSE and OSHA collaborated to ensure that response and recovery workers had personal protective equipment to protect from injury and illness
- Common hazards:
 - Electrical Hazards
 - Flood Cleanup Hazards
 - Falls
 - Portable Generators
 - Construction Hazards
 - Tree Trimming and Debris Removal
 - Work Zone Traffic Safety
 - Mold



Hurricane “Superstorm” Sandy



Hurricane “Superstorm” Sandy



Sandy Webpage

<http://www.osha.gov/sandy>



OSHA field staff is working diligently to provide assistance and support to those involved in the Hurricane Sandy cleanup and recovery.

If you need to contact OSHA for an emergency situation, please call the toll-free hotline 1-800-321-OSHA. For non-urgent matters, you can call the OSHA hotline or [send an email](#).

OSHA urges workers and members of the public engaged in cleanup and recovery activities to be aware of the hazards they might encounter and the necessary steps they should take to protect themselves. OSHA has created a [fact sheet](#)* for keeping workers safe during Hurricane Sandy cleanup and recovery. It provides details on possible hazards and protective measures.

Common hazards include downed electrical wires, carbon monoxide and electrical hazards from portable generators, fall and "struck-by" hazards from tree trimming or working at heights, being caught in unprotected excavations or confined spaces, burns, lacerations, musculoskeletal injuries, being struck by traffic or heavy equipment, and encountering contaminated water during flood cleanup.

Protective measures involve evaluating the work area for all hazards; assuming all power lines are live; following safe practices when doing tree work; using fall protection and proper ladder safety when working at heights; task specific exposure monitoring; and utilizing proper precautions for traffic work zones.

Although hazard avoidance is preferred, some situations may expose workers to hazards which can only be mitigated by personal protective equipment (PPE). OSHA's [Hurricane Sandy Cleanup PPE Matrix](#)* assists employers in determining the appropriate PPE for specific tasks.

For additional information on US Department of Labor recovery efforts in communities affected by Hurricane Sandy, see [DOL's Hurricane Recovery Assistance page](#).



Secretary of Labor Hilda Solis (second from left) met with cleanup and recovery workers Nov. 29, 2012, during her tour of storm-damaged areas of Staten Island, N.Y. View more [photos](#).

Press Releases and Other New Items

- [Letter from OSHA Region II Administrator to Voluntary Agency Partners on Safety and Health Protections](#) (January 18, 2013)
- [OSHA posts results of sampling for contaminants at Sandy cleanup areas in New York and New Jersey](#) (January 9, 2013)
- [New OSHA Analysis Results page](#).
- [OSHA issues new fact sheet on mold hazards and safeguards for workers during Sandy cleanup](#) (December 5, 2012)
- [Mold Hazards during Hurricane Sandy Cleanup Fact Sheet](#)*[[en español](#)*]
- [OSHA issues new fact sheet on importance and necessity of providing, using proper](#)

Keeping Workers Safe Fact Sheet




Keeping Workers Safe during Hurricane Sandy Cleanup and Recovery

Hurricane Sandy resulted in widespread flooding and damage to property and infrastructure. Cleanup and recovery activities involve hazards that can cause serious injuries or death. OSHA urges employers and workers engaged in cleanup and recovery to be aware of these hazards and how to protect workers. These hazards are outlined below along with the proper precautions for employers and workers.

- If you are an employer, worker, homeowner, or member of the public involved in cleanup and recovery activities, it is important that you assess the potential for hazardous conditions and/or exposures before you engage in these activities.
- Based on an initial assessment of hazards, employers need to provide workers with the appropriate personal protective equipment, training, and information to safely perform the work.

If you have questions, need information or advice, need assistance, or to report an emergency or to file a complaint, call OSHA at 1-800-321-OSHA (6742). We are here to help. For more information about the hazards listed below, visit OSHA's Hurricane Sandy website at: <http://www.osha.gov/sandy/index.html>.

	Possible Hazards	Protective Measures
Contaminated Floodwaters	<ul style="list-style-type: none"> • Bacteria and other infectious organisms from sewage in water and soil. • Toxic substances from flooded industrial and waste sites. • Mold and fungi in the air.  <p>Source: www.npr.gov</p>	<ul style="list-style-type: none"> • Ventilate enclosed spaces with fresh air. • Assume that floodwater is contaminated unless proven otherwise. • Allow only trained workers with the proper personal protective equipment to clean up toxic chemicals, other hazardous waste, and mold. • Be up-to-date with a tetanus shot (within the last 10 years). • Discard water-damaged and visibly contaminated materials. • Use waterproof boots, latex or rubber gloves and other protective clothing. Consider using special chemical-resistant outer clothing and protective goggles. • Use an N-95 NIOSH-approved disposable respirator, at a minimum, when handling mold-contaminated materials. • Keep an adequate supply of clean water available for drinking and washing.
Downed Power Lines	<ul style="list-style-type: none"> • Burns and electrocution from contact with energized lines or objects, including tree limbs in contact with downed power lines. 	<ul style="list-style-type: none"> • Assume that all power lines are live or energized. • Establish and clearly mark a danger zone around downed lines. Stay at least 10 feet from all downed lines. • Allow only properly trained and equipped workers to repair electrical wires.
Tree Trimming and Debris Removal	<ul style="list-style-type: none"> • Electrocution from contact with power lines or tree limbs in contact with power lines. • Being struck or crushed by falling tree limbs. • Injuries from equipment, such as chain saws and chippers. • Strains and sprains from lifting or moving tree limbs and other debris. 	<ul style="list-style-type: none"> • Contact the utility company to de-energize and ground or shield power lines. All tree trimming/removal within 10 feet of a power line must be done by trained tree trimmers. • Establish and clearly mark a danger zone where tree debris may fall onto workers. Stay alert at all times. • Use work gloves, a hard hat, work boots, hearing protection and eye/face protection. Wear chaps when using a chain saw. • Watch out for chain saw kickback. Do not cut with saw tip. • Do not get too close to a chipper. Never reach into an operating chipper. • Use mechanical equipment to lift heavy objects. If not possible, use extra people and proper lifting techniques.

	Possible Hazards	Protective Measures
Falls	<ul style="list-style-type: none"> • Falls from aerial lifts, ladders, scaffolds, and other elevated work surfaces. • Slippery and uneven working surfaces that can cause injuries due to slips, trips and falls. 	<ul style="list-style-type: none"> • Use safe procedures to prevent aerial lift tip-overs. Use a body harness or restraining belt with a lanyard attached to the boom or basket of the lift. • Use proper ladder safety (e.g., set on firm and stable ground, maintain "three-point" contact, do not stand on top rung). • Be aware of wet or slippery surfaces, obstacles, or uneven surfaces on the site.
Portable Generators	<ul style="list-style-type: none"> • Shocks and electrocution from gas and diesel powered generators. • Toxic carbon monoxide (CO) from generator exhaust. • Fires from improper refueling and fuel storage. 	<ul style="list-style-type: none"> • Never run a portable generator inside a house or in an enclosed space like a garage. • Inspect electric cords to ensure they are in good condition and free of defects. Use a ground-fault circuit interrupter (GFCI). • Ensure that spaces where generators are used are properly ventilated. • Shut down the generator before refueling. Never store fuel or the generator indoors.
Work Zones	<ul style="list-style-type: none"> • Transportation incidents (injuries and deaths) in work zones where workers are struck by moving vehicles and mobile equipment. 	<ul style="list-style-type: none"> • Wear high-visibility clothing and headwear compliant with ANSI/ISEA 107-2004. • Use proper traffic controls (i.e., signs, cones, barriers). • Use proper lighting, flaggers and two-way communications. • Make sure that vehicle operators are properly trained. • Always use seat belts and rollover protection.
Construction Activities	<ul style="list-style-type: none"> • Exposure to asbestos-contaminated materials during the demolition of buildings and structures. • Spaces with limited access, suffocation hazards, or which are confined spaces. • Trenching and excavation accidents (cave-ins). • Risk of back, knee and shoulder injuries from manual lifting and handling of building materials and fallen tree limbs. 	<ul style="list-style-type: none"> • Properly select and use PPE (personal protective equipment) which may include respiratory protection, along with other procedures detailed in 29 CFR 1926.1101. • Do not enter permit-required confined spaces without training and a permit to enter. See 29 CFR 1910.146 for more information. • Prevent cave-ins by benching, sloping, shoring, or shielding the soil. See 29 CFR 1926.651 and 1926.652 for more information. • Use proper lifting techniques and teams of two or more to move bulky or heavy items.

Worker Rights

You have the right to a safe workplace. The Occupational Safety and Health Act of 1970 (OSH Act) was passed to prevent workers from being killed or seriously harmed at work. The law requires that employers provide their employees with working conditions that are free of known dangers. OSHA sets and enforces protective workplace safety and health standards. OSHA also provides information, training and assistance to workers and employers. Workers may file a complaint to have OSHA inspect their workplace if they believe that their employer is not following OSHA standards or that there are serious hazards. Contact OSHA at 1-800-321-OSHA (6742) if you have questions or want to file a complaint. We will keep your information confidential. We are here to help you.

This fact sheet creates no new legal obligations. It contains recommendations as well as descriptions of OSHA safety and health standards. By law, employers must comply with safety and health standards and regulations and provide their employees with workplaces free from recognized hazards likely to cause death or serious physical harm. The recommendations provide additional information intended to assist employers in providing safe and healthful workplaces. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

OSHA 309-101 12/2012

PPE Fact Sheet

OSHA[®] FactSheet

Hurricane Sandy Cleanup PPE Matrix

Workers engaged in hurricane cleanup and recovery activities may be exposed to a variety of hazards. A comprehensive list of potential hazards and controls, sorted by common tasks, can be found in OSHA's Hurricane eMatrix. Specialized operations, such as electrical power restoration, hazardous materials response, or confined space entry require controls specified in the applicable OSHA standards.

- Designing away around a hazard is always the preferred control method. For example, installing a guardrail to prevent a fall from occurring is better than relying on a safety harness and lanyard to catch the worker after a fall occurs. However, in many cases personal protective equipment (PPE) may be the only practical control method. All PPE has limitations and is the control method of last resort.
- The suggested PPE Matrix is provided to assist employers in determining the PPE needed for a specific task. Respiratory protection is addressed below the matrix.

PPE \ Task	Task	Normal Cleanup Activities	Working in Wet Conditions	Working with Chain Saws	Working Near/Over Water	Working at Heights Over 6 ft.	Working Near Loud Noise
Head	Hard Hat	X	X	X	X	X	X
Eyes	Safety Glasses	X		X	X	X	X
	Safety Goggles		X				
Face	Face Shield			X			
Ears	Hearing Protection			X			X
Hands	Work Gloves	X		X	X	X	X
	Latex/Rubber Gloves		X				
Body	Hi-Visibility Garment	X	X	X	X	X	X
	Impervious Body Suit		X				
	PFD and Life Ring				X		
	Chaps			X			
	Fall Protection					X	
Feet	Steel Toe Boots	X		X	X	X	X
	Waterproof Boots		X				
Other PPE	Workboat/Skiff				X		

Respiratory Protection: The employer must assess site-specific conditions for potential respiratory contaminants and protection.

- In many cases, N-95 filtering facepiece respirators may be adequate for dust or other particulates.
- Where mold is known to be or potentially may be present, use an approved respirator. See the OSHA fact sheet on Mold Hazards during Hurricane Sandy Cleanup (OSHA FS-3619) for further guidance.
- Where asbestos is known to be or potentially may be present and disturbed, higher levels of protection are required (e.g., P100 particulate filter respirator).
- In addition, the requirements of OSHA's Asbestos standard, 29 CFR 1910.1001, also need to be followed.
- Where chemical contaminants are present, such as organic chemicals, different cartridges or filters are required depending on the chemical.
- Common respirators do not protect workers from carbon monoxide (CO), which is present in the exhaust from generators and other internal combustion engines.
- Respirator selection and use is regulated due to the potential risk to workers.
- Employers who provide N-95 filtering facepiece respirators for voluntary use by their employees need to provide their workers with Appendix D of OSHA's Respiratory Protection standard, 29 CFR 1910.134. Appendix D provides precautions that workers should take to ensure that the respirator does not present a hazard.
- Where employers mandate the use of respirators, additional requirements of the Standard apply, including fit testing and medical evaluation.
- Training regarding the limitations of respirators, proper fitting, when they should be replaced, and medical considerations for the user is essential.

Sanitation and Hygiene: In addition to PPE, proper sanitation and hygiene are essential for minimizing the spread of contaminants and disease. Handwashing is a critical component of good hygiene. In the absence of suitable facilities, workers should be provided with hand sanitizer.

- It is essential that employers assess each site and operation individually to determine the actual or potential hazards based on site-specific conditions. Employees must always be trained to recognize hazards and take necessary precautions.
- Workers relying on PPE must be trained to recognize these limitations, as well as the safe ways to put on and remove PPE, properly store it, take care of it, and when it's time to replace it.

Additional guidance, Fact Sheets, and other information can be found on OSHA's Hurricane Sandy webpage. Another source of information is the resource webpage maintained by the National Institute of Environmental Health Sciences (NIEHS).

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OSHA Activities in Hurricane “Superstorm” Sandy

- Over 360 OSHA field and national office staff supported response activities over approximately a 3 month period
- Over 1,600 outreach briefings
 - Reaching over 42,000 workers (over 9,000 non-English speaking)
- Over 3,200 field interventions
 - Reaching over 21,000 workers (over 7,800 removed from danger)
- Overall, OSHA impacted over 63,000 workers involved in Sandy cleanup and recovery



West Fertilizer Company Explosion



West Fertilizer Company Explosion

- OSHA fined the West facility with 24 citations totaling over \$118,000
- As a result, President Obama issued Executive Order 13650- *Improving Chemical Facility Safety and Security*



Moore, Oklahoma Tornadoes



Moore, Oklahoma Tornadoes



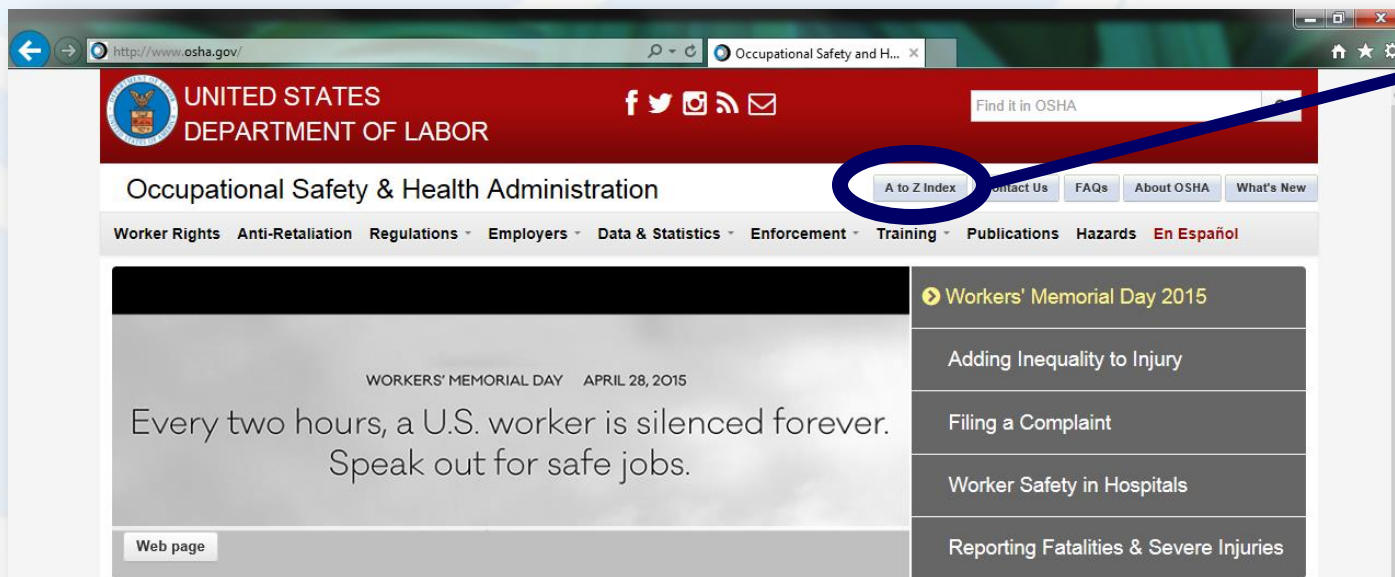
Oso, Washington Mudslide







Emergency Preparedness & Response Resources



- ❖ Click on “A to Z Index”
- ❖ Scroll to emergency topics in the list.

Visit OSHA's web site for additional information. The OSHA page links to many emergency preparedness and response resources.

www.osha.gov | www.osha.gov/SLTC/emergencypreparedness/



Workers' Rights video on YouTube

NEWSLETTER

OSHA QuickTakes

- Get the latest industry/hazards alerts
- Find out if OSHA has inspected a workplace
- Find information on construction hazards
- Get help for clinicians



Questions?

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Office of Emergency Management and Preparedness
Directorate of Technical Support and Emergency Management
Occupational Safety and Health Administration (OSHA)
U.S. Department of Labor

