OSHA's ROLE IN EMERGENCY RESPONSE

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Cooperative and State Programs
Main Briefing Topics

• Why is Worker Safety and Health important?
• Why Worker Safety and Health are sometimes overlooked.
• How OSHA fits into the National Response Framework.
• What are OSHA’s Primary “Essential Support Functions?”
• OSHA’s varying roles during a response – Outreach vs. Enforcement.
• What is the value added by OSHA during Emergency Response operations?
• What agencies does OSHA provide support to during Emergency Response operations?
• What are the OSHA online resources available regarding Worker Safety and Health?
• What are some main concerns with utilizing Volunteer Workers during Emergency Response operations?
• Why is training important for responders before being utilized in Response Operations?
• Overview of OSHA Region VI response operations.
• What are the hazards involved in the various examples of response operations?
• What are the roles of the Compliance Safety and Health Officer (CSHO) and the Compliance Assistance Specialist (CAS) in Emergency Response Operations?
• What personnel comprise an OSHA “Strike Team” and what do they do?
OSHA’s Mission

The Occupational Safety and Health Administration was created to:

- Encourage employers and employees to reduce workplace hazards and to implement new or improve existing safety/health programs;

- Provide for research in occupational safety and health;

- Establish "separate but dependent responsibilities and rights" for employers and employees for the achievement of better safety and health conditions;

- Maintain a reporting and recordkeeping system to monitor job-related injuries and illnesses;

- Develop mandatory job safety and health standards and enforce them effectively.
OSHA Region VI Area Office Staffing & Mission

Typical OSHA Area Office Staffing

- One Area Director
- Two Assistant Area Directors (Can be Three)
- Comprised of 14 CSHO’s (Two Teams)(Can be More)
- General Industry Team-7 CSHOs
- Construction Team-7 CSHOs
- Specialized Teams - Engineers

Mission

Programmed Inspections (Enforcement)

- Random selection by computer report
- Special emphasis programs based on kinds of hazards in a line of work
- Comprehensive with chance of “Focus”
OSHA Region VI Area Office Staffing & Mission

Mission

Un-programmed inspections (Enforcement)

- All work-related fatalities within 8 hours (same as current requirement)
- All work-related in-patient hospitalizations of one or more employees within 24 hours
- All work-related amputations within 24 hours
- All work-related losses of an eye within 24 hours
- Complaints: Signed by current employee (Formal) or “phone & fax” (Non-Formal) ignored by the employer
- Referral: Notice of a hazard by a credible safety professional or confirmed report from the media or by another government agency and as evaluated by the Area Director
National Laws, Plans & Policy

OSH Act 1970

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)
- National Response System (Oil & hazardous substance releases)
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 Response System (NRS)

https://www.dhs.gov/xlibrary/assets/NRP_Brochure.pdf

**National Response Plan**

**Signatory Partners**
- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Education
- Department of Energy
- Department of Health and Human Services
- Department of Homeland Security
- Department of Housing and Urban Development
- Department of the Interior
- Department of Justice
- Department of Labor
- Department of State
- Department of Transportation
- Department of the Treasury
- Department of Veterans Affairs
- Central Intelligence Agency
- Environmental Protection Agency
- Federal Bureau of Investigation
- Federal Communications Commission
- General Services Administration
- National Aeronautics and Space Administration
- National Transportation Safety Board
- Nuclear Regulatory Commission
- Office of Personnel Management
- Small Business Administration
- Social Security Administration
- Tennessee Valley Authority
- U.S. Agency for International Development
- U.S. Postal Service
- American Red Cross
- Corporation for National and Community Service
- National Voluntary Organizations Active in Disaster

**All-Discipline, All-Hazards Plan**

The National Response Plan (NRP) is an all-discipline, all-hazards plan that establishes a single, comprehensive framework for the management of domestic incidents. It provides the structure and mechanism for coordinating Federal support to State, local, and tribal incident managers and for exercising direct Federal authorities and responsibilities. The NRP assists in the important homeland security mission of preventing terrorist attacks within the United States; reducing the vulnerability to all natural and man-made hazards; and minimizing the damage and assisting in the recovery in the event of any incident that occurs.

**Incidents of National Significance**

The NRP provides the mechanisms for a comprehensive, coordinated response to all incidents of National Significance. Incidents of National Significance are high-impact events that require an extensive and well-coordinated multiagency response to save lives, minimize damage, and provide the basis for long-term recovery. As the principal Federal official for domestic incident management, the Secretary of Homeland Security declares Incidents of National Significance (in consultation with other departments and agencies as appropriate).

**All-Inclusive Development Process**

The President of the United States directed the Secretary of the Department of Homeland Security (DHS) to develop and administer the NRP. The Plan was drafted by a multiagency team using input from Federal, State, local, tribal, private sector, and nongovernmental stakeholder groups.
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 is 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.
- Local, State, and/or Federal assets can rapidly become overwhelmed – Example: The EF4 Tornado that impacted Newcastle, OK (pop. 7,847) at approximately 1556 EDT, and moved through Moore, OK (pop. 56,315), quickly depleted local agencies ability to respond.
Worker Safety & Health Support Annex

Coordinating Agency: DOL/OSHA
Cooperating Agencies: DOD, DOE, DHHS, DHS, EPA

Worker Safety and Health Support (WSH) Support Annex capabilities include:

- Providing technical worker safety and health expertise to response partners
- Communicating worker safety/health information to workers and stakeholders
- Identifying, assessing, and controlling worker safety and health hazards
- Developing and implementing site-specific Health and Safety Plans
- Conducting worker exposure monitoring, sampling, and analysis
- Implementing a coordinated Personal Protective Equipment program for workers
- Coordinating incident-specific worker safety and health training
- Collecting and managing worker exposure and injury/illness data
- Providing medical surveillance/monitoring of response workers
- For more information, go to http://www.osha.gov/SLTC/emergencypreparedness/index.html
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 Emergency Response Teams (RERTs)

- 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
Region VI Response Team

OSHA Region VI Emergency Response Team (RERT)

- Approximately forty-nine members, broken down into three (3) teams (Red/White/Blue) with the responsibility of staffing the roles as designated within the Regional Emergency Management Plan (REMP)

Regional Emergency Management Plan (REMP)

- Provides a framework for response to ALL catastrophic incidents
- Features a scaleable & flexible Plan to accommodate large and limited scale incidents
- Operates using a Support Cell Concept
- The Support Cell is directed by a Deputy Incident Commander (DIC)
- The Joint Field Officer (JFO) Liaison is located at the Joint Field Office (JFO)
REMP Activation

- At the discretion of Regional Administrator or as directed by National Office

- Indicators may include:
  - National Response Framework (NRF) activation
  - National Emergency Management Plan (NEMP) activation
  - Requests from federal, state or local authorities
    *Example of “federal” agency activation - Regional Response Team 6 (EPA/USCG) request for Worker Safety and Health support
OSHA’s Emergency Preparedness and Response Website

OSHA’s website: www.osha.gov

- Natural Disasters/Severe Wx
- Hurricanes/Tornadoes
- Resources and Guides Section:
  - eTools
  - Safety and Health Topics
  - Guidance Documents
  - Fact Sheets
  - National Response Framework
OSHA’s Emergency Preparedness and Response Website

Across the Top You’ll See:

- Introduction Tab
- Background Tab
- Preparedness Tab
- Checklists
- Response/Recovery
- Resources
Response / Recovery Tab:

- Response/Recovery Process
- Potential Hazards
- General Precautions
- Fact Sheets and Quick Cards
- Other Resources – NIOSH; FEMA; etc....
Checklists Web Page:

- Select “Checklists” Tab
- Select ”Tornado Safety Checklist”
- Note that the Page also contains a “Resources Tab”
Checklist Tab - Red Cross Ready Checklist:

- Be Prepared – Have a Plan!
- Know Communities Warning Signs!
- Practice – Periodic Tornado Drills!
- Know Danger Signs!
OSHA’s Salt Lake Technical Center

Salt Lake Technical Center (SLTC) Role and Mission:
SLTC provides technical leadership, expertise and services in the evaluation and control of workplace hazards through:

- Field assessments and support
- Laboratory testing
- Emergency preparedness and response
- Website resources
- Consultation and guidance

Science Staff:
- Certified Industrial Hygienist
- Certified Safety Professionals
- Chemists
- Microbiologists
- Physical Scientists

Engineering:
- Chemical
- Civil
- Materials Science
- Mechanical
- Metallurgical

Expert Assistance:
- Biosafety
- Explosibility
- Health Physics
- Non-ionizing Radiation
- Process Safety Management
- Safety
- Ventilation
Types of Disasters

Man-Made
- Oil / Chemical Spills
- Radiation Releases
- Terrorist Attacks

Natural
- Hurricanes
- Tornadoes
- Earthquakes
- Wildfires
- Floods
- Mudslides
OSHA Region VI Responses

- Maersk-Conti
- Oklahoma Ice Storm
- Van & Lindale, TX Tornadoes
- Dallas Metro Tornadoes
OSHA Region VI Responses

- Hurricane Katrina
- Horizon Oil Spill
- Moore, OK Tornado
- West, TX Fertilizer Plant
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
- Approximately 150 OSHA professionals involved, with over 25 to 40 performing intervention related actions, in over 17 staging areas LA, MS, AL & FL
- OSHA - “Role in the Response” report at www.osha.gov/oilspills
Deepwater Horizon Oil Spill Response

“OSHA's Role During the Response”

- Ensure that workers have received safety and health training;
- Collect information on employers, workers, and correlate work tasks;
- Conduct Interventions & Identify Hazards;
- Analyze Personal Protective Equipment (PPE) and Usage;
- Analyze Health & Safety Plans (HASP);
- Assist Employers in the Implementation of Controls;
- Provide Technical Assistance to Unified Command (UC) and Supported Agencies;
- Develop and implement exposure assessment and sampling strategy

Sampling Strategy

Three (3) work zones
- Onshore
- Near shore
- Offshore
Deepwater Horizon Oil Spill Response

“OSHA's Role During the Response” – Lessons Learned

- **Coordinated Federal Response.** OSHA worked as part of the coordinated federal response (U.S. Coast Guard and other government agencies) to evaluate BP's efforts and make sure BP put in place all of the precautions needed to protect workers from the hazards associated with cleanup work.

- **OSHA Strike Teams.** Strike Teams consisting of Compliance Safety and Health Officers (CSHO) and Industrial Hygienists (I.H.) conducted site-interventions in the affected areas, identifying hazardous conditions, talking to workers and employers, and ensuring that BP officials were apprised of the findings.

- **OSHA raised employee safety concerns throughout the Unified Command so they could be addressed across the entire response area.**

- **Exposure to Toxic Chemicals.** To determine whether or not workers were exposed to dangerous levels of toxic chemicals, OSHA conducted its own independent air monitoring, both on shore and on the cleanup vessels, and reviewed data provided from BP, the U.S. Environmental Protection Agency (US EPA) and the National Oceanic and Atmospheric Administration (NOAA).

- **OSHA's Sampling Strategy.** Detailed findings, and evaluations are addressed under frequently asked questions on health hazards and protections, including information on respirators and other personal protective equipment - [https://www.osha.gov/oilspills/dwh_osha_response_0511a.pdf](https://www.osha.gov/oilspills/dwh_osha_response_0511a.pdf)

- **Training is important.** To work in cleanup, the response agency/employer must be trained on the hazards of your job in a language that you understand. Employees must be trained before the oil spill response and cleanup work begins.
Deepwater Horizon Oil Spill Response
Volunteer Activity

Volunteers Were Needed and Welcomed
- Local/State/Federal Agencies were quickly overwhelmed.

Volunteers Have Skills, but Not All Were Trained
- Many “self-deployed.” Many did not have a basic HAZCOM training or understanding of the workings of the Incident Command System.
- No system in place to house and feed the volunteers.
- The Emergency Operations Plan did not have a good system in place to utilize the volunteers.
- Many were “unaffiliated” and had no credentials, but yet, many had valuable skills to offer.

FEMA Recommendations
- During the development of the Emergency Operations Plan, FEMA suggests incorporation of the vetting, training and use of spontaneous volunteers during emergency response operations.
- Describe how roles and responsibilities will be determined for unaffiliated volunteers, and how to incorporate these individuals into emergency response operations.
- Recommend affiliation with groups that may possess programs that effectively train and organize volunteers – American Red Cross or Community Emergency Response Team (CERT) to name a few.

Volunteers of America, Greater New Orleans Recommendation
- Recommends implementing a “Call Center” or Volunteer Reception Center.
Deepwater Horizon Oil Spill Response

Heat Stress

**Heat Stress.** Heat stress was one of the most serious health hazards facing cleanup workers during the operations.

- The risk from the heat and humidity is exacerbated by the long days worked and the protective equipment required, e.g. chemical resistant Tyvek coveralls, boots and gloves.

- More than a thousand (1000) workers were treated for heat related illnesses, and some cases were very serious. At OSHA’s urging, BP implemented at all work sites a heat stress management plan that included a matrix setting out specific work/rest requirements based on heat, relative humidity, and the protective equipment work by all workers.
Deepwater Horizon Oil Spill Response
Calculating Heat Stress

The calculation of the WBGT for indoors:

- $14 \text{ WBGT} = 0.7\text{tnwb} + 0.3\text{tg}$

The calculation of the WBGT for outdoors:

- $16 \text{ WBGT} = 0.7\text{tnwb} + 0.2\text{tg} + 0.1\text{ta}$

Or you can go to the following website to download the OSHA APP:


Or, Use one of These>>> (No OSHA endorsement!)

Environmental factors that contribute to the risk of heat-related illness:

**Clothing and Personal Protective Equipment (PPE)**
- Heavy clothing
- Multiple layers
- Dark colored clothing
- Protective clothing
- Vapor barrier clothing
- Chemical resistant suits
- Respiratory protection
Deepwater Horizon Oil Spill Response
Calculating Heat Stress

Enter Temperature & Humidity or use “Get Current” feature

Produces * Heat Index and Risk Level

View “Precautions”
Heat Stress Administrative Work Controls

What Personal Protective Equipment is effective in minimizing heat stress?

**Reflective clothing** – Reflective clothing, which can vary from aprons and jackets to suits that completely enclose the worker from neck to feet, can reduce the radiant heat reaching the worker. Use of RC:

- Most reflective clothing does not allow air exchange through the garment, the reduction of radiant heat must more than offset the corresponding loss in evaporative cooling.
- Reflective clothing should be worn as loosely as possible. In situations where radiant heat is high, auxiliary cooling systems can be used under the reflective clothing.

**Auxiliary Body Cooling Ice Vests** - Auxiliary body cooling ice vests, though heavy, may accommodate as many as 72 ice packets, which are usually filled with water. Carbon dioxide (dry ice) can also be used as a coolant:

- The cooling offered by ice packets lasts only 2 to 4 hours at moderate to heavy heat loads.
- Frequent replacement is necessary.
- Ice vests do not tether the worker and thus permit maximum mobility.

**Wetted Clothing** - Wetted clothing such as terry cloth coveralls or two-piece, whole-body cotton suits are another simple and inexpensive personal cooling technique:

- Wetted clothing is effective when reflective or other impermeable protective clothing is worn.
- Can be quite effective under conditions of high temperature, good air flow, and low humidity.
Deepwater Horizon Oil Spill Response
Calculating Heat Stress

Various Products Available (No-OSHA Endorsement)
Severe Weather Events – Winds/Flooding/T.S. Bill
May 29, 2015:
- As a result of several days of on-shore Gulf flow, and Pacific weather systems, severe flooding began in, and around the areas of Wimberley, and New Braunfels, TX areas.

June 05, 2015:
- Received series of FEMA Spot Reports indicating flooding occurring throughout the Central Texas areas.
- Advised via email by the Austin Area Director / AAD that the Hayes and Comal Counties were noting extensive damage due to flooding, and expect to plan for conducting interventions in the impacted areas.
- Began coordination for publications with the Office of Communications.
- Sent QC/FS to Austin Area Director/AAD via UPS – among the various ones sent: General Decon; Working Safely with Chain Saws; Poisonous Snakes and Tree Trimming Tips.
- Quick Takes – Region VI Emergency Response Coordinator (ERC) crafts initial draft regarding Region VI emergency response activities for the Regional Administrator.
Wimberley (Comal/Real/Hays Counties) Flood Response
Austin Area Office Activity

Austin Area Office Interventions (05/27/2015) to (06/02/2015):

May 29, 2015:

- 14:00: Contacted by Area Director (AD), Austin Area Office (AAO). AD advised that Assistant Area Director (AAD) would be proceeding down to the Wimberley Area.

- 14:10 Passed SPOT Report to Assistant Regional Administrator (ARA).

- 17:00: Contacted ARA via telephone and went over conditions in Austin Area, including AAO plans to begin interventions. We will request daily updates on AAO strike team(s) actions.

SHELTERS AND MASS CARE

- The American Red Cross prepared for location in Hays, Caldwell and Real Counties – to accommodate approximately 40 residents per shelter. Kendall County: Boerne First Baptist Church and Middle School North are being prepared as shelters, and both are being stood up by American Red Cross.

FATALITIES AND INJURIES

- None at present – reports indicate possible conditions exist to produce casualties/injuries.

DAMAGE ASSESSMENTS

Wimberley (Comal/Real/Hays Counties) Flood Response

Austin Area Office Activity

**Austin Area Office Interventions (05/27/2015) to (06/02/2015):**

**May 26, 2015:**
- 17:40 Coordinate with A.A.D. regarding plans for AAO interventions plans – Requested daily updates on AAO strike team(s) actions.

**May 27, 2015**
- AAD Mike Jarvis visited Hays County Command center and arranges for CSHO Murray to attend briefing the next day.

**May 28, 2015**
- AAO CSHO Murray visits to multiple command centers:
  - Visited Hays County Command Center, and Volunteer Staging Area in San Marcos, TX.
  - Travelled to Wimberley, TX in Hays County to conduct assessment - Travelled to Caldwell County and met with County Sheriff – Received briefing on the extent of the flood damage.
  - Hazard(s) Identified - Volunteer Site – Volunteers were located under metal pop up tents, with convective weather in the area. Spoke with on-site manager, and discussed inclement weather contingency plan – Provided recommendation to monitor weather conditions and for potential approaching severe weather – plan to move to alternate location (vehicles). Manager was able to locate an area inside of an existing hardened structure.
  - Quick Card/Fact Sheets (QC/FS) distributed: Mold; Generator Safety; Electrical Safety; Chain Saw Safety; and Recluse Spiders.
Van, TX Tornado Response

**Background:**
- May 11, 2015: The National Weather Service issued a tornado warning at 8:55 p.m. Van, Texas Police Department reported the touch down of the tornado approximately five minutes later. Later, confirmation came of a tornado that touched down in the area at around 9:00 p.m., Sunday evening. Van, Texas is a town of about 2,600 located 70 miles southeast of Dallas.

- The tornado’s path stretched 9.9 miles long and 700 yards wide. On May 12, 2015, at approximately 3 p.m. the National Weather Service (NWS) announced a preliminary rating of an EF-3 tornado, with winds reaching 135 to 145 miles per hour.

**City of Van, Texas Press Conference:**
- Monday, May 11, 2015 @ 10:30 a.m., city officials update residents on the state of the city;
- Two (2) confirmed fatalities in the areas of South Bois D Arc Street, near a mobile home park;
- Approximately 43 people were taken to local hospitals via ambulance to be treated for injuries.
- As of Monday morning, eight (8) of ten (10) people were missing or unaccounted for;
- Van ISD also announced their elementary school, intermediate school, administration building and bus barn received significant damage. The damage prompted school officials to cancel classes for Monday.
Van, TX Tornado Response
OSHA Activity

May 12, 2015 – Deployment of DAO CAS to Van, Texas

Coordination:

- Region VI Emergency Response Coordinator (ERC) contacts Dallas Area Office (DA0) CAS Elias Vela and provides overview of FEMA Situation Reports and information.
- Provided courtesy notification to FEMA Region VI, SWO Paul Spencer, and requested he relay to State EOC that OSHA would have a CAS working in Van, Texas in support.

Deployment:

- DAO CAS Vela arrives in the City of Van, Texas – Check in with Fire Department Incident Command Center and speaks with Fire Marshall Charles Allen.

Total OSHA Quick Cards Distributed = 45
Total Fact Sheets Distributed = 20
Total Interventions = 3
Affected Persons = 84
May 11, 2015

Coordination with Dallas Area Office (DAO):

- ERC contacts DAO Compliance Assistance Specialist (CAS) Vela - Discuss overview of FEMA Situation Reports and formulate an intervention work plan.

- Relay DAO CAS info to FEMA Senior Watch (Spencer) - Requested that he relay intent to Local Command reference CAS begin WSH Annex 1 – FEMA provided contact information – contacted local command and advise of intent.

Deployment – May 12, 2015:

- DAO CAS Vela arrives in the City of Van, Texas – Check in with Fire Department Incident Command Center and speaks with Fire Marshall Charles Allen.
- CAS delivers disaster relief Quick Cards and Fact Sheets, including: Heat Stress; Working Safely Around Downed Electrical Lines; Chain Saw Safety; Tree Trimming Tips; General Decontamination; Portable Generator Safety; Work Zone Safety during Disaster Recovery Efforts; Working Safely with Electricity; and Protecting Workers in Warm Climates.

Total OSHA Quick Cards Distributed = 45
Total Fact Sheets Distributed = 20
Total Interventions = 3
Affected Persons = 84
Van, TX Tornado Response
OSHA Activity

Dallas Area Office Interventions (05/12/2015) to (05/14/2015): May 14, 2015 - 0800:

- CAS toured the JE Rhodes Elementary School area, talking to Managers of a disaster recovery company that was conducting safety briefings to about 40 employees.

- The teams were preparing to deploy with their team-leaders, for the purpose of picking-up debris that had been deposited all around the school buildings. CAS observed that some employees did not have the proper personal protective equipment (PPE) – CAS spoke with the company’s Manager and recommended that he ensure that all employees (approximately 62) on-site have proper PPE – including foot/hand/eye. The Manager coordinated to obtain the required PPE.

- CAS spoke with a Roofing company representative regarding fall protection; ladder safety; PPE for the approximate eight employees working on a roof of a school building.

- CAS walked the approximate two square miles of the affected areas, speaking with principal volunteers that were cleaning up debris, additionally, CAS spoke with Police and State Troopers that were manning controlled access points, regarding Work Zone Safety.

- CAS spoke to a group of volunteers regarding the need for hydration. CAS noted that other volunteers were spotted traversing the streets and collecting debris in their carts, as well as distributing boxes of lunches and bottled-water for the volunteers cleaning up the debris.
Winter Storm Cara Response
Oklahoma City Area Office Activity

**Thursday, November 26, 2015 – Winter Storm Cara**

- Artic air and tropical moisture converged across the southern and central Plains bringing freezing rain and ½ to 1 inch ice accumulations into Central Oklahoma;
- Oklahoma Gas & Electric (OGE) reported 88,828 customers without power by November 28th – multiple road closures in Atoka, Cherokee, Love, and Pittsburg Counties;

**FEMA SPOT Reports - 10/28/2015 – 0855:**

- Received several SPOT Reports regarding Winter Storm Cara and forward to ARA;
- Disseminate accountability query via email to affected Area Offices (LAO/OCAO) and requested status of their personnel – and received confirmation.

**Coordinating Intervention Efforts – North West Oklahoma**

- Forwarded FEMA SPOT Reports onto Oklahoma City Area Office (OCAO) AD and received phone call from OCAO CAS Jorge Delucca - discussed events and began Intervention planning – advised ARA;

**Tuesday – December 01, 2015 – Interventions in North West Oklahoma**

- CSHO from OCAO travelled to the North Yukon and Piedmont areas to begin interventions;
- CSHO noted three (3) workers assisting a homeowner located on Monroe Avenue in Piedmont, OK – noted workers gathering limbs from the ground, using ladders, cut off saw equipment, including chain saws to cut tree branches and load inside trailers. CSHO provided workers with information on head/hand/eye & hearing protection, as well as safe use of ladders;
- CSHO noted three (3) workers, a property owner and two relatives clearing debris and overhead limbs at a residence located on Jackson Street in Piedmont, OK, with a chain saw and axe, without the use of head/hand/eye & hearing protection. CSHO provided workers with information on head/hand/eye & hearing protection, as well as safe use of ladders.
Winter Storm Cara Response
Oklahoma City Area Office Activity – Intervention Photos

Photo of Tree Trimming Operations Piedmont, OK
– OCAO CAS Delucca

Photo of Tree Trimming Operations Yukon, OK
– OCAO CAS Delucca

Photo of Tree Trimming Operations Yukon, OK
– OCAO CAS Delucca

Photo of Tree Trimming Operations Piedmont, OK
– OCAO CAS Delucca
Winter Storm Cara Response
Oklahoma City Area Office Activity

Tuesday, December 01, 2015 - Intervention Efforts – NW Oklahoma

*CSHO travelled from Piedmont, OK to North Yukon, OK to begin interventions;*

- CSHO noted three (3) workers, a property owner and two workers, located at a residence on Hackney Lane Yukon, OK – noted workers conducting work up in a tree working from a ladder and climbing the tree limbs with clipping cutters and a small chainsaw, additionally, workers gathered limbs from the ground using cut-off saw equipment and chain saws to cut tree branches and load inside a trailer. CSHO provided conducted a safety talk with the workers, and provided them with information on head/hand/eye & hearing protection, as well as safe use of ladders;

- CSHO noted five (5) workers, which were part of a yard maintenance crew, working at a residence located that was located on Hackney Lane, Yukon, OK clearing debris and overhead limbs. The CSHO noted that the crew was standing on limbs inside the tree approximately 15-20 feet above the ground, without climbing harness. CSHO noted that the crew members used a rope tied onto a tree with a makeshift hand hold, and worked with a chain saw with one arm, while standing on a single limb cutting branches. The CSHO noted that none of the workers on the ground wore head protection. The CSHO provided workers with information on head/hand/eye & hearing protection, safe use of ladders, and required use of a climbing harness. The CSHO obtained information regarding the company, history, contact Information and advised the foreman of possible enforcement action.
Garland/Rowlett/Glenn Heights/Ellis County Response
Damage Photos
Garland/Rowlett/Glenn Heights/Ellis County Response
Dallas Area Office Activity

Tornado Damage to Residences, Commercial and School Properties
- Total of nine (9) tornadoes
- EF4 in Garland, Tx; EF3 in Rowlett, Tx – 13 mile track - Total of eight (8) fatalities;
- EF3 in Midlothian, Ovilla and Glenn Heights, Tx
- EF2 (two) in Collin County, near town of Copeville, Tx – Total of two (2) fatalities;
- EF2 in Blue Ridge, Tx - Total of one (1) fatality;
- EF0 tornadoes were reported in the following towns: Ennis; Eustace; Emory; Hillsboro; Hubbard; Maypearl; and Sulphur Springs, Tx.

Monday, 12/28/2015 Deployment of Dallas Area Office (DAO) Strike Teams
- Two member teams were set to the following three affected areas: Garland, Glenn Heights/Ovilla/Ellis County, and Rowlett;
- Teams met with respective incident commander and established procedures for getting safety and health information out to the responders;
- City of Garland has restricted access - access permit was required to transit;
- Strike Teams positioned at restricted access points, disseminating QC/FS to workers entering the affected areas;
- City of Rowlett – Strike Teams are escorted by Fireman to the affected areas, meeting with contractors that are performing various tasks, including search and rescue, demolition and clean-up.
- City of Glenn Heights is requiring contractors to pull permits prior to the start of work. Strike Team members staffed booths near the permitting office to Disseminate QC/FS to workers prior to entering the affected areas;
- Ellis County did not require permits – Strike Team members met directly with workers on-site;
- Engineer (PE) from DAO met with the City of Rowlett regarding the stability of the water tower – a 200-ft restricted area has been established around the water tower.
- Approximately 12 to 14 interventions were performed.
Garland/Rowlett/Glenn Heights/Ellis County Response
Intervention Photos

Dallas Area Office – Leticia Barnes and Agapito Castilleja conducting intervention with a local demolition contractor in the City of Glenn Heights, Texas. Employees were performing demolition work at 2 houses in the area; CSHO’s provided employees with PPE handouts and general information regarding demolition hazards and spoke to them regarding safe work practices while performing site clean-up work.

Dallas Area OSHA Office – Theresa Salazar (Safety Specialist) conducting interventions in the Ellis County, Texas area where site clearing crews were using chain saws to cut up trees to be put into a chipper for removal from the area; Salazar provided employees with OSHA Quick Cards and Fact Sheets, regarding the use of chain saws, chippers, and site clearing.
Dallas Area OSHA Office – Leticia Barnes (Safety Specialist) speaking with American Red Cross Volunteers, while conducting interventions in the City of Rowlett, Texas. Volunteers were provided safety information on hazards of demolition and site clearing work, as well as OSHA Quick Cards and Fact Sheets.

Dallas Area OSHA Office – Justine Callahan (Safety Specialist) conducting intervention with a local electrical power crews that were beginning electrical power grid reconstruction work in the City of Rowlett, Texas. Employees received a Safety Tool Box talk on the hazards of working with electricity and operations ongoing in the area (site clearing, as well as the use of required personal protective equipment).
Tornado Response
Regional Office Products

OSHA Regional News Release / OSHA Quick Takes

- Regional News Release and Quick Take Article – Drew the information from the Situation Reports and emails;
- Very effective tool to use to reach and inform the Public, response workers and employers, that may be involved in response/recovery operations.

OSHA takes action to help tornado recovery workers stay safe in Texas

After a series of tornadoes struck parts of north Texas last week, causing at least 11 deaths and extensive destruction of property, OSHA moved quickly to ensure the safety of recovery workers and responders.

The Dallas office dispatched three teams of Compliance Safety and Health Officers to the most damaged areas - Garland, Glenn Heights/Ovilie/Elis County, and Rowlett - and worked with local officials to deliver safety and health information to recovery contractors and workers. The teams also sought to ensure that workers conducting cleanup activities had the proper training and equipment.

"Recovery work should not put you in the hospital emergency room," said John Hermanson, OSHA's regional administrator in Dallas. He noted that workers could encounter hazards related to restoring electricity, communications, and water and sewer services, as well as demolition, tree trimming, debris removal and more. To spread the word, Hermanson issued a local news release urging caution and pointing to OSHA's extensive web resources on tornado preparation and cleanup. "OSHA wants to make certain that all working men and women, including volunteers, return home at the end of the workday," he said.

OSHA Regional News Release

U.S. Department of Labor
Office of Public Affairs
Region 6

Dec 26, 2015

US Labor Department urges tornado recovery workers and public to be vigilant and aware of hazards during storm cleanup

DALLAS - Texas residents, emergency workers, employers and the public: recovering from the impact of the tornado in North Texas should be aware of the hazards they may encounter and take necessary steps to stay safe, the U.S. Department of Labor's Occupational Safety and Health Administration urges.

"Recovery work should not put you in the hospital emergency room," said John Hermanson, OSHA's regional administrator in Dallas. "A range of safety and health hazards exist following storms. You may minimize these dangers with knowledge, safe work practices and personal protective equipment. OSHA wants to make certain that all working men and women, including volunteers, return home at the end of the workday."

Cleanup work after the tornado may involve hazards related to restoring electricity, communications, and water and sewer services. Other hazards pertain to demolition activities, debris cleanup, tree trimming and structural, roadway and bridge repair, hazardous waste operations; and emergency response activities. OSHA maintains a comprehensive website to help disaster site workers stay safe during tornado and storm cleanup and recovery operations.

In addition to several teams at the affected area, OSHA has many resources on tornado preparedness and response detailing how to stay safe in preparation of a tornado and subsequent cleanup. Only workers provided with the proper training, equipment and experience should conduct cleanup activities.

Protective measures should include the following:
- Evaluating the work area for hazards.
- Employing engineering or work practice controls to mitigate hazards.
- Using personal protective equipment.
- Assuring all power lines are live.
- Using portable generators, saws, ladders, vehicles and other equipment properly.
- Feeding safety precautions for traffic work zones.

Individuals involved in recovery efforts may call OSHA's toll-free hotline at 800-311-Osha (6742) or visit the agency's website to reach Texas representatives who can provide on-site assistance.

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit http://www.osha.gov.
Tornado Response

OSHA Products — Quick Card / Fact Sheets

Demolition and Cleanup

Before starting a demolition, the person or persons in charge must adequately prepare for the task with regard to the health and safety of the workers. These preparatory operations involve the overall planning of the demolition job, including the methods to be used to bring the structure down, the equipment necessary to do the job, and the measures to be taken to perform the work safely. Before doing demolition work, inspect available personal protective equipment (PPE), and select, wear and use the PPE appropriate for the task.

Demolition work involves many of the same hazards associated with construction work. However, demolition also poses additional hazards due to unknown factors such as: deviations from the structure original design, materials hidden within structural members, and unknown strengths or weaknesses of damaged materials. To counter these unknowns, all personnel involved in a demolition project need to be fully aware of these types of hazards and the safety precautions available to control these hazards.

Preliminary Tasks

A written engineering survey must be performed on each structure being considered for demolition to determine the condition of the framing, floors, and walls, and to assess the possibility of an unplanned collapse of any portion of the structure. Always drill holes in the walls and floors of structures which have been damaged and which employees must enter. Never work on or around any air, gas, water, sewer, and other service lines outside the building line. Notify appropriate utility companies. Temporarily relocate and protect any essential power, water, or other utilities.

Determine the types of hazardous chemicals, gases, explosives, and flammable materials which have been used in any pipes, tanks, or other equipment on the property. Test and purge the hazardous chemicals, gases, explosives, or flammable materials. Survey for asbestos or other hazardous materials.

Guard well openings to a height of 42 inches. Cover and secure floor openings with material able to withstand the loads likely to be imposed. Debris dropped through holes in the floor without the use of chutes must be completely enclosed with barricades or not less than 42 inches high and not less than 6 feet wide from the projected edge of the opening above.

Energy

Downed wires can energize other objects, including fences, water pipes, brushes and trees, buildings, telephones/CATV/telephone optic cables and other electric utilities. Even minute current in energized substations or transformers can become energized by downed wires. During storms, wind blown objects such as canopies, aluminum roofs, siding, shingles, etc., can also be energized by downed wires.

Back-up

When electrical conductors are inadvertently energized by other energy sources, back-up occurs. Some of those sources include: Circuit breakers, switches, points, Lightning, Generators, Downstream events. Simply testing for energy sources is not sufficient, since hazardous electrical events can happen without warning. Ensure that proper lockout/tagout procedures are always followed.

Working Safely Around Downed Electrical Wires

Electrical hazards exist in some form in nearly all occupations. However, those hazards multiply for workers involved in cleanup and recovery efforts following major disasters and weather emergencies. One particular life-threatening danger exists around downed and low-voltage energized electrical wires.

Safety First

Rules to live by

- Do not assume that a downed conductor is safe simply because it is on the ground or it is not sparking.
- Do not assume that all coated, weatherproof or insulated wire is just telephone or fiber optic cable.
- Low-voltage wires still have voltage potential even if they are not touching the ground. So, don't touch them. Everything is energized until tested to be de-energized.
- Never go near or come near energized electric power lines. Always assume that it is energized. Touching it could be fatal.
- Electricity can spread outward through the ground in a circular shape from the point of contact. As you move away from the center, large differences in voltages can be crossed.
- Never drive over downed power lines. Assume that they are energized. And, even if they are not, downed lines can become energized in your equipment or vehicle.
- If contact is made with an energized power line while you are in a vehicle, remain calm and do not get out of the vehicle. If possible, call for help.
- If you must exit any equipment because of fire or other safety reasons. Try to jump completely clear. Making sure that you do not touch the equipment and that the ground at the same time. Land with both feet together and shuffle away in small steps to minimize the path of electric current and avoid electric shock. Be careful to maintain your balance.

General

There must be a traffic control plan for the movement of vehicles in areas where there are also working construction tasks. Drivers, workers on foot, and pedestrians must be able to see and understand the routes they are to follow. The authority in charge, Federal, state, or local, will determine the configuration of the temporary traffic control zone for the construction project. The construction project manager will determine the internal traffic control plan within the construction/ demolition zone. When there are several projects, coordinated vehicle routes and communication between contractors will reduce vehicle struck-by incidents.

Rules to live by

- Do not assume that a downed conductor is safe simply because it is on the ground or it is not sparking.
- Do not assume that all coated, weatherproof or insulated wire is just telephone or fiber optic cable.
- Low-voltage wires still have voltage potential even if they are not touching the ground. So, don't touch them. Everything is energized until tested to be de-energized.
- Never go near or come near energized electric power lines. Always assume that it is energized. Touching it could be fatal.
- Electricity can spread outward through the ground in a circular shape from the point of contact. As you move away from the center, large differences in voltages can be crossed.
- Never drive over downed power lines. Assume that they are energized. And, even if they are not, downed lines can become energized in your equipment or vehicle.
- If contact is made with an energized power line while you are in a vehicle, remain calm and do not get out of the vehicle. If possible, call for help.
- If you must exit any equipment because of fire or other safety reasons. Try to jump completely clear. Making sure that you do not touch the equipment and that the ground at the same time. Land with both feet together and shuffle away in small steps to minimize the path of electric current and avoid electric shock. Be careful to maintain your balance.

OSHA Fact Sheet
Tornado Response

OSHA Products  Quick Card / Fact Sheets

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**Electrical Safety**

Electrical hazards can cause burns, shocks and electrocution (death).
- Assume that all overhead wires are energized at deadly voltages. Never assume that a wire is safe to touch even if it is down or appears to be insulated.
- Never touch a fallen overhead power line. Call the electric utility company to report fallen electrical lines.
- Stay at least 10 feet (3 meters) away from overhead wires during cleanup and other activities. If working at heights or handling long objects, survey the area before starting work for the presence of overhead wires.
- If an overhead wire falls across your vehicle while you are driving, stay inside the vehicle and continue to drive away from the line. If the engine stalls, do not leave your vehicle. Warn people not to touch the vehicle or the wire. Call or ask someone to call the local electric utility company and emergency services.
- Never operate electrical equipment while you are standing in water.
- Never repair electrical cords or equipment unless qualified and authorized.
- Have a qualified electrician inspect electrical equipment that has gotten wet before energizing it.
- If working in damp locations, inspect electric cords and equipment to ensure that they are in good condition and free of defects, and use a ground-fault circuit interrupter (GFCI).
- Always use caution when working near electricity.

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**Protecting Worker Safety and Health Under the National Response Framework**

During a disaster, protecting response and recovery workers is essential for assuring a successful response and recovery. When large-scale disasters overwhelm state and local assets, the National Response Framework (NRF) Worker Safety and Health Support Annex can provide the technical assistance needed to help protect Federal, state, tribal, and local organizations' response and recovery workers. Depending upon the scope, complexity, and hazards associated with the incident, these services can include:
- Identifying and assessing worker health and safety hazards present at the incident site and in the environment.
- Assessment of the resources needed to protect workers and identifying the sources available to meet these needs.
- Providing technical expertise in industrial hygiene, occupational safety and health, structural collapse engineering, safety engineering, radiation safety, biological and chemical agent response, and occupational medicine.
- Managing the creation and implementation of a site-specific health and safety plan (HASP).
- Monitoring and managing worker safety and health hazards through on-site identification, evaluation, analysis, and mitigation, including personal exposure monitoring.
- Providing assistance with developing, implementing, and monitoring the personal protective equipment (PPE) program, including the selection, use, and decontamination of PPE.
- Coordinating the collection and management of exposure and incident/injury data to identify trends and facilitate data sharing.
- Coordinating and providing incident-specific response and recovery worker training.
- Assisting with the development and distribution of educational materials on preventing and mitigating hazards.

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**Chain Saw Safety**

Operating a chain saw can be hazardous. Potential injuries can be minimized by using proper personal protective equipment and safe operating procedures.

**Before Starting a Chain Saw**
- Check controls, chain tension, and all bolts and handles to ensure that they are functioning properly and that they are adjusted according to the manufacturer's instructions. Make sure that the chain is always sharp and that the air tank is full.
- Start the saw on the ground or on another flat support. Drop starting is never allowed.
- Start the saw at least 3 feet from the fueling area, with the chain's brake engaged.

**Fueling a Chain Saw**
- Use approved containers for transporting fuel to the saw.
- Dispense fuel at least 10 feet away from any sources of ignition when performing construction activities. No smoking during fueling.
- Use a funnel or a flexible hose when pouring fuel into the saw.
- Never attempt to fuel a running or HOT saw.

**Chainsaw Safety**
- Clear away dirt, debris, small tree limbs and rocks from the saw's path. Look for nails, spikes or other metal in the area before cutting.
- Shut off the saw or engage its chain brake when carrying the saw on rough or uneven terrain.
- Keep your hands on the saw's handle and maintain balance while operating the saw.
- Proper personal protective equipment must be worn when operating the saw, which includes hand, foot, leg, eye, face, hearing, and head protection.
- Do not wear loose-fitting clothing.
- Be careful that the trunk or tree limbs will not bind against the saw.
- Watch for branches under tension; they may spring out when cut.
- Gasoline-powered chain saws must be equipped with a protective device that minimizes chain saw kickback. To avoid kickback, do not saw with this tip. Keep tip guard in place.

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For more information:
OSHA® Quick Card
U.S. Department of Labor
www.osha.gov (800) 424-6676

For more complete information:
OSHA® Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 316-OSHA
Tornado Response

Updated and New Products – Quick Card / Fact Sheets

Recommended Practices

Protecting Temporary Workers

The Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH) have issued a series of recommendations to protect temporary workers during a tornado response.

Workers employed through staffing agencies are generally called temporary or contract workers for the duration of the staffing agreement. These workers may not have access to safety training or equipment used by permanent employees, as the staffing agency might not provide it.

When a tornado warning is issued, the staffing agency should ensure that temporary workers are aware of the measures in place to protect them. They should be trained on the location of emergency exits, the use of personal protective equipment, and the procedures to be followed in the event of a tornado.

Quick Card / Fact Sheets

Comparison of NFPA 704 and HazCom 2012 Labels

The NFPA (National Fire Protection Association) and OSHA (Occupational Safety and Health Administration) have different systems for classifying hazards. NFPA uses a four-digit system, while OSHA uses a more detailed classification system.

Steps to create an OSHA quick card:

1. Perform the classification in accordance with Appendix A.
2. Use the classification in accordance with OSHA 1910.1200.
3. Enter the classification on the quick card.

United States Department of Labor
OSHA

Hazard Communication Standard Pictogram

As of June 1, 2015, the Hazard Communication Standard (HCS) require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard.

Asbestos, Bloodborne Pathogens, Carcinogens, Chemicals, Combustibles, Corrosives, Metals, Noise, Radiation, Solvents, and Violence.

For more information:

OSHA (Occupational Safety and Health Administration)
U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)
OSHA’s Site for Emergency Preparedness & Response: https://www.osha.gov/SLTC/emergencypreparedness

Questions??

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