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## Rebuilding after Harvey Pt 3: Keeping inexperienced workers safe

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Hurricane Harvey decimated large swathes of south Texas coastline, submerging the state's largest city in the worst floods ever recorded. The future looks just as grim; the aftermath may become a perfect storm of safety hazards for those helping to rebuild the area. A tight construction labor market, contaminated flood waters, and the dangers of demolition and construction intersect to create the potential for multiple safety and health hazards for construction workers.

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### **OSHA Fact Sheet 3698 - Keeping Workers Safe during Disaster Cleanup and Recovery**

OSHA provides a fact sheet covering the various dangers and their potential hazards as well as protective measures. It includes information about:

- Contaminated floodwaters – infection or illness from bacteria, viruses, mold, fungi, and other toxic substances
- Downed power lines – electrocution and electrical burns
- Tree trimming and debris removal – electrocution from limbs or equipment contacting power lines
- Falls – from aerial lifts, ladders, roofs, and slippery or uneven work surfaces
- Portable generators – carbon monoxide poisoning, fires, electrocution
- Work zones - transportation incidents and strikes from moving equipment
- Construction activities – asbestos exposure, suffocation hazards, trenching and excavation accidents, risk of back, knee, and shoulder injuries from lifting heavy

materials

The hazards of these areas can be mitigated or avoided with the proper use of personal protective equipment and safety training.

At issue is that demolition and construction companies will probably hire inexperienced workers. It may be the case particularly with low skill jobs such as tearing out and hauling away debris, tree trimming and cutting, and structural framing.

Where will these workers obtain personal protective equipment and the training to use it properly? Will they receive proper training in safety measures, particularly those faced in a flood zone? Or will they face these dangers without understanding the risks?

### **Train All Workers Responsibility for Safety**

For companies hiring, the first concern should be to **provide them with Personal Protective Equipment**, or PPE for short, and train them on its use. Each day, a supervisor should organise training sessions for everyone to reinforce training of new workers. Each day, a supervisor should ensure the PPE is maintained and stored safely. The proper and consistent use of the appropriate PPE is second only to thorough and frequent hand washing in keeping workers free from injury and illness.

Training in **electrical safety** is crucial.

### **Always Assume Power Lines and Outlets Are Energized.**

- Train workers to avoid stepping into water where downed electrical lines and power outlets might be until the area has been declared safe by trained utility workers.
- When using generators, ensure they are never directly attached to a structural electrical system unless a qualified electrician has properly installed a transfer switch.
- Always plug electrical equipment directly into the generator with grounded (three pronged) extension cords.
- Use Ground Fault Circuit Interrupters (GFCIs) in and around water.
- Be aware of power lines when trimming trees and moving equipment.

Generator safety includes understanding the potential for carbon monoxide (CO) poisoning. Generators should never be used in enclosed spaces; you need plenty of ventilation. Also, they should not be placed near open doors or windows where CO might drift into an enclosed space.

Symptoms of **carbon monoxide exposure** include dizziness, headaches, nausea, and tiredness. If a worker begins to feel ill, he or she should seek fresh air immediately.

Generators also become very hot while they are in use. Train workers to keep flammable substances away from the motor, especially when refueling. The generator should be shut down and allowed to cool so spilled fuel does not ignite.

**Mold** is sure to be an issue. Mold mitigation efforts must begin within 48 hours of a flood

event. Unfortunately, Hurricane Harvey's continued presence used up that safety margin. As workers enter structures, the risk of mold and mold spore contamination is high. Workers should bring or be provided with full or partial N, R, or P-100 respirators to prevent respiratory illness.

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Any material that has been soaked in floodwater must be taken out of structures for disposal. If removal is from an upper story, use a covered chute with a door at the exit to prevent the spread of mold spores. Disinfect all PPE, surfaces, and fabric with 1/2 cup household bleach per gallon of water. Do not mix the bleach solution with any product that contains ammonia.

### **Unstable Structures**

Many buildings were completely demolished by hurricane-force winds and debris has been scattered everywhere. However, some remained standing. Before anyone enters a building, establish its stability.

- Brace or shore up walls and floors where workers must enter.
- Inspect all passageways and stairs to ensure they are usable without collapsing.
- Illuminate all stairways and dark areas to prevent falls, caught-in/ between, and struck-by hazards.
- Inspect and guard wall openings over 42 inches high to prevent collapse.
- All workers must not be permitted to work where structural collapse hazards exist until they have been corrected by effective means.

While some structures will appear to be in danger of imminent collapse, do not allow workers into any structure until it has been assessed. Seemingly complete structures may have weaknesses not visible to the untrained eye.

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Now and in the months ahead, people who have never worked in demolition or construction will be doing both. The pipeline for skilled and experienced construction workers has been constricted for far too long, and we now find ourselves in a bind.

If and when companies hire new workers, regardless of their experience, they should concentrate on safety training first, before allowing anyone to enter the disaster zone to help with cleanup.

To learn more about Hurricane Harvey check out these articles:

[Hurricane Harvey Closes Key Oil, Gas Operations in Texas](#)

[Hurricane Harvey Recovery Pt. 2: Labor Woes](#)

House Overwhelmingly Passes \$7.9 Billion Harvey Aid Bill

Hurricane Harvey Recovery Pt. 2: Labor Woes