



## Coming Down... Coming Down!



Greater Houston  
Chapter

*In OSHA's 1926 Construction Standards, less than one and one-half pages are dedicated to the manner in which safe demolition procedures will be followed. Yet, demolition of buildings is probably the most dangerous procedure in construction. Building is dangerous, demolition is doubly dangerous.*

**Just what does OSHA** have to say about safe demolition practices? Here's a sample, direct from the OSHA Standards book:

**"Prior to permitting employees** to start demolition operations, an engineering survey shall be made, by a competent person, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portions of the structure.

It continues: "Any adjacent structure where employees may be exposed shall also be similarly checked. The employer shall have in writing evidence that such a survey has been performed."

**What does OSHA highlight** in terms of the crucial danger areas of demolition? Here is a sampling:

- **All electric, gas, water, steam, etc.** must be shut off, capped, or in some fashion controlled outside the building line before demolition work is started.
- **If any type of hazardous chemicals,** gases, explosives, flammable materials, etc., have been used in any pipes, tanks, or other equipment on the property, testing and purging must be performed before demolition is started.
- **Where a hazard exists** to workers falling through wall openings, the opening must be protected with horizontal guardrails at the 42" height, and the 21" height.
- **When debris is dropped** through floor openings (holes) without the use of chutes, the area onto which the material is dropped must be completely enclosed with barricades (guardrails at the 42" height), and not less than six feet back from the projected edge of the opening above.
- **Signs, warning** of hazards of falling materials, must be prepared at each level.
- **Demolition of exterior walls** and floor construction shall begin at the top of the structure and proceed downward.
- **Workers' entrance to multistory** structures being demolished must be completely protected by sidewalk sheds or canopies, providing protection from the face of the building for a minimum of eight feet.
- **All material chutes** that are an angle of more than 45° from the horizontal shall be entirely enclosed. A substantial gate must be installed in each chute at the "discharge" end. A "competent" person must be assigned to control the operation of the gate, and the backing and loading of trucks.
- **Employees must not work** on the top of a wall when weather conditions constitute a hazard (i.e., high winds, heavy rains, snow, etc.).

**What other types of hazards** should you be on the lookout for (either as the supervisor on-site or workers)? How about this list of hazards that are present in almost all demolition projects:

|                  |                     |
|------------------|---------------------|
| Asbestos         | Electrical Hazards  |
| High Chimneys    | Sharp Edges (Metal) |
| Elevator Shafts  | Unlighted Areas     |
| Wrecking Balls   | Tunnels             |
| Lead             | Falls               |
| Floor Openings   | Dust Fibers         |
| Stairwell Shafts | Pipe Duct Chases    |
| Gas Lines        | Falling Debris      |

**What about personal protective equipment?** As a minimum, these pieces of personal protective equipment are a must:

- Wrap-Around Safety Goggles
  - Hard Hats
  - Ear Plugs/Muffs
  - Long-sleeved Shirts
  - Long Trousers
    - Shin Guards
    - Heavy-Duty Work Boots
      - Steel Shanks In Boots
      - Respirators
        - Gas Meters
        - Full-Body Harnesses (when appropriate)
        - Safety Lines/Lanyards
        - Fire Extinguishers

*Demolition is a highly-specialized phase of construction. It's not for the faint of hears, or those who don't have a high appreciation of dangers surrounding everyone on this type of site.*