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DEMOLITION

WE ARE SAFE ON DEMO DAY.

OSHA STANDARDS

Demolition work involves many of the hazards associated with construction. Therefore, all of §29 CFR Part 1926 – Construction Standards apply at a demolition site. However, demolition involves additional hazards due to unknown hazards, which makes demolition work particularly dangerous. For this reason, OSHA created the Subpart T – Demolition standards specifically for these operations.

PURPOSE/SCOPE

Demolition is the dismantling, razing, destroying, or wrecking of any building or structure or any part thereof. Demolition work involves many of the hazards associated with construction. However, demolition involves additional hazards due to unknown factors which makes demolition work particularly dangerous. These may include:

- Changes to the structure's design introduced during construction.
- Approved or unapproved modifications that altered the original design.
- Materials hidden within structural members, such as lead, asbestos, silica, and other chemicals or heavy metals require special material handling.
- Unknown strengths or weaknesses of construction materials, such as post-tensioned concrete.
- Hazards created by the demolition methods used.

This program outlines control measures supervisors should consider planning for a successful and safe demolition project. Those supervising demolition activities should be familiar with the OSHA §29 CFR 1926, Subpart T, and all federal, state, and local requirements that apply to demolition work.

GENERAL REQUIREMENTS

Before the demolition process can begin, regardless of if it is selective or total building demolition, sufficient exploratory work has to be performed as each project has unique situations that warrant different preventative measures. Contact the Safety Manager, demolition subcontractor(s), and other affected parties (as required) before the project starts to set up a demolition review.

A demolition plan that reflects the findings of the review shall be developed and approved by the Project Manager. Demolition work that requires registered Professional Engineer (PE) approval will not be started until the appropriate signed documentation is received from the PE. The plan shall include an evaluation of hazardous materials exposure.

Asbestos and lead are common hazards encountered in demolition. When encountered, refer to the Asbestos and Lead Exposure sections of this manual.

Prior to any demolition, the supervisor shall ensure that a One-Call Ticket for underground utilities has been approved and marked any overhead power lines.

HAZARDS

The Company must plan ahead to get the job done safely. Proper planning is essential to ensure a demolition operation is conducted with no accidents or injuries. This includes, but is not limited to:

- A survey is completed by a Competent Person before any demolition work takes place. This should include the condition of the structure and the possibility of an unplanned collapse.
- Locating, securing, and/or relocating any nearby utilities.
- Fire prevention and evacuation plan.
- First Aid and Emergency Medical Services.
- An assessment of health hazards is completed before any demolition work takes place.

The Company must provide the right protection and equipment.

The Company must determine what Personal Protective Equipment (PPE) will be required. In demolition operations, PPE may include:

- Eye, face, head, hand, and foot protection
- Respiratory protection
- Hearing protection
- Personal Fall Arrest Systems (PFAS)
- Other protective clothing (for example, cutting or welding operations)

To combat these, everyone at a demolition jobsite must be fully aware of the hazards they may encounter and the safety precautions they must take to protect themselves and the employee-owners.

RESPONSIBILITIES PROJECT TEAM

- Provide employee-owners with demolition information via site orientation, pre-construction meetings, etc.
- Coordinate with all applicable parties to ensure jobsite conditions are in suitable condition to begin the demolition process.
- Conduct investigative work to identify potential risks associated with the demolition work.
- Request information related to the demolition project from the appropriate parties, including Phase I and II assessments, asbestos surveys, abatement reports, environmental studies, and engineering surveys from the subcontractor for total building demolition.
- Communicate the appropriate information to affected parties during the bidding, pre-construction, and construction phases.

BUILDING DEMOLITION

- Building demolition is achieved by a variety of means and methods, using many kinds of equipment and tools. Demolition experts can recommend which methods are appropriate for particular projects. For simplicity, demolition methods can be grouped under the categories of mechanical, implosion, and special
- A survey shall be completed by the responsible party prior to the start of demolition. A copy of the survey should be given to the project manager.
- The demolition methods, shoring requirements, and demolition procedure should be outlined by the demolition contractor based on the engineering survey.
- Environmental hazards must be addressed prior to the start of demolition activities.
- Utilities shall be cut and capped, or otherwise guarded before activities start.
- Contact appropriate utility owners and personnel to coordinate.
- Entrances to a multistory structure shall be protected by a suitable canopy-type structure. Prior to the start of work, determine if there are specific requirements for the township in which the work is being performed.
- Chutes, slides, etc. shall be used in disposing of materials. Prior to the start of work, develop procedures to safely operate and maintain (especially unclogging) chutes.
- The area at the base of the chute and/or the area around the dumpster into which the chutes are emptying is to be barricaded. Depending on the location of the exit point of the chute, different control measures may be implemented (e.g. fence and signage).
- Structures (or portions of) shall not be left in an unstable condition before break or at the end of the day. Any standing portions of a wall or structure that are structurally unstable shall be demolished or supported.
- Prior to demolition in areas with potential exposure to bloodborne pathogens, a certificate of clean is to be provided by the Company.
- Coordinate the following operations (as applicable):
 - + Documenting existing conditions
 - + Engineering calculations and support/protection methods (e.g. shores)
 - + Demolition procedures (e.g. no blind cuts into walls with reciprocating saws)
 - + Water management
 - + Temporary weather protection
 - + Interim life safety measures
- Dust and infection control
 - + Separation (e.g. temporary walls and signage)
 - + Surrounding operations and facility restrictions (e.g. noise, times, etc.)
 - + Debris removal
 - + Ceiling/overhead demolition
 - + Hot work
 - + Maintaining fire ratings
 - + Utilities
- Identify shut-off valve locations (water, sprinklers, gas, oxygen, etc.).
- Can the valves be reached? How will they be reached during an emergency?
- Does a ladder have to be at each location?
- If a system does not have a shut/isolation valve, investigate the possibility of installing one for the project.
- Mark up a drawing and identify where the valve locations are and place it next to the doors leaving the space.
- Sprinkler systems
 - + Can the systems be turned off or do they have to stay live?
 - + If the sprinkler system cannot be shut down or disconnected, develop a procedure for protecting the sprinkler system.
- Cages over sprinkler heads, caution tape on heads to make visible, install sleeves overheads, etc.
- Routinely revisit the location of the valves with all personnel involved in order to increase response time in case of an emergency.
- All floor penetrations have to be sealed down to the floor with non-water soluble chalk by the end of the shift.
- Refer to the Personal Protective Equipment Policy section for protecting employee-owners involved in demolition activities.
- Chutes, slides, etc. shall be used in disposing of materials. Prior to the start of work, develop procedures to safely operate and maintain (especially unclogging) chutes.
- The area at the base of the chute and/or the area around the dumpster into which the chutes are emptying is to be barricaded. Depending on the location of the exit point of the chute, different control measures may be implemented (e.g. fence and signage).
- Structures (or portions of) shall not be left in an unstable condition before break or at the end of the day. Any standing portions of a wall or structure that are structurally unstable shall be demolished or supported.

EXHIBIT 3.DD.001

Demolition Checklist

Before any demolition commences, a Demolition Checklist needs to be completed. This can be found in Volume V Forms section of the Safety Management Program or in the Company Safety Management System. A sample Demolition Checklist is below.

Demolition Checklist	
Project Name:	Company's Date:
Physical Address of Property Being Torn Down:	
Competent Person on-site: Emergency Contact Information:	
Full Demolition: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Expected completion date:	Expected completion date:
Safety briefing conducted with crews prior to demolition? Yes <input type="checkbox"/> No <input type="checkbox"/>	Was a final walk-through inspection made to ensure nobody was left in building prior to demolition? Yes <input type="checkbox"/> No <input type="checkbox"/>
Demolition permits been obtained? Yes <input type="checkbox"/> No <input type="checkbox"/> Explain:	
Describe the process of how the demolition will occur:	
Type of machine(s) used in demolition? List type and equipment #	