WAC 296-155-774 Definitions and applicability. This part sets forth requirements to protect employees from hazards associated with demolition operations.

Competent person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective action to eliminate them.

**Demolition.** Dismantling, razing, destroying, or wrecking any building or structure or any part thereof, including any related handling operations.

When a provision of this chapter conflicts with a provision of another vertical safety standard applying to the place of work, the provisions of the vertical standard of specific application will prevail.

## Reference:

Requirements for the use of ladders found in chapter 296-876 WAC. Requirements for the use of scaffolds found in chapter 296-874 WAC.

Requirements for the use of cranes and derricks found in chapter 296-155 WAC, Part L.

Requirements for the use of elevated work platforms found in chapter 296-869 WAC.

Requirements for the use of hoists found in chapter 296-155 WAC, Part R.

AMENDATORY SECTION (Amending WSR 16-09-085, filed 4/19/16, effective 5/20/16)

- WAC 296-155-775 Preparatory operations. (1) (a) Prior to permitting employees to start demolition operations, ((you must make an engineering survey, by a competent person,)) a competent person must perform an engineering survey of the structure(s) to determine the condition and structural integrity of the framing, floors, walls, and the possibility of unplanned collapse of any portion of the structure(s). Any adjacent structure(s) where employees may be exposed must also be similarly checked. ((You must similarly check adjacent structures where employees may be exposed. You must have in writing, evidence that such a survey has been performed.
- (2) You must maintain a copy of the survey report and of the plans and/or methods of operations at the job site for the duration of the demolition operation)) (b) You must maintain a copy of the engineering survey at the job site for the duration of the demolition operation.
- (2) (a) You must develop and implement a written demolition plan tailored to the operation and to the types of hazards involved. The demolition plan must incorporate conditions of the framing, floors, and walls, and potential of unplanned collapse of any portion of the structure(s) identified in the engineering survey.
- (b) The demolition plan must be available on the job site for inspection by the department.

- (3) ((Any device or equipment such as scaffolds, ladders, derricks, hoists, etc., used in connection with demolition work must be constructed, installed, inspected, maintained and operated in accordance with the regulations governing the construction, installation, inspection, maintenance and operation of such device or equipment as specified in other parts of this chapter.
- (4)) You must observe federal and state codes, safety standards, rules, regulations, and ordinances governing any and all phases of demolition work at all times.
- $((\frac{5}{}))$ )  $\underline{(4)}$  You must conduct demolition of all buildings and structures under  $(\frac{5}{2})$   $\underline{(5)}$  supervision  $(\frac{5}{2})$  and  $\underline{(5)}$   $\underline{(5)}$   $\underline{(5)}$  You must conduct demolition of all buildings and structures under  $\underline{(5)}$   $\underline{(6)}$   $\underline{(6$
- $((\frac{(6)}{()}))$  (5) When employees are required to work within a structure to be demolished which has been damaged by fire, flood, explosion, or other cause, you must shore or brace the walls or floors.
- $((\frac{7}{}))$  <u>(6)</u> You must shut off, cap, or otherwise control all electric, gas, water, steam, sewer, and other service lines outside the building line before demolition work is started. In each case, you must notify any utility company which is involved in advance.
- ((8))) (7) If it is necessary to maintain any power, water or other utilities during demolition, such lines must be temporarily relocated, as necessary, and protected.
- $((\frac{(9)}{)})$  (8) (a) You must determine  $((\frac{\text{whether}}{\text{whether}}))$   $\underline{if}$  asbestos, hazardous materials, hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances are present at the  $((\frac{\text{work site}}{\text{site}}))$   $\underline{\text{worksite}}$  and adjacent structures that could be affected by the demolition operation.
- (b) When the presence of any such substance is apparent or suspected, ((you must perform)) testing and removal ((or purging and eliminate)) must be performed and the hazard eliminated before demolition is started.
- (c) Testing and removal of such substances must be in accordance with the requirements of chapters 296-62 and 296-65 WAC, and any other applicable federal, state, or local regulations, laws, or rules.
  - (9) When the removal of material may cause dust to be formed:
- (a) When the removal of material may expose employees to airborne hazards the requirements in chapter 296-841 WAC must be followed.
- (b) When the removal of material may expose employees to respirable crystalline silica, the requirements in chapter 296-840 WAC must be followed.
- (10) Where a hazard exists from fragmentation of glass, you must remove such hazards prior to starting demolition activities.
- (11) ((Where a hazard exists to employees falling through wall openings, you must protect the opening to a height of between 36 and 42 inches.)) You must ensure that each employee working on, at, above, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 4 feet or more above a lower level and the inside bottom edge of the wall opening is less than 39 inches above the working surface, are protected from falling by the use of a guardrail system, safety net system, personal fall arrest system, or personal fall restraint system in accordance with chapter 296-880 WAC, Unified safety standards for fall protection.
- (12) When debris is dropped without the use of chutes, the area onto which the material is dropped must be completely enclosed with barricades not less than 42 inches high and not less than 20 feet back from the projected edge of the opening above. You must post signs, warning of the hazard of falling materials, at each level. You must

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not permit removal in this lower area until debris handling ceases above.

- (13) ((All floor openings, not used as material drops, must be covered over with material substantial enough to support the weight of any load which may be imposed)) Cover requirement Holes.
- (a) Hole covers must be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.
- (b) You must mark each cover with the word "hole" or "cover" to provide warning of the hazard.
- (c) You must ((properly)) secure ((such material)) all covers to
  prevent ((its)) accidental ((movement)) displacement by wind, equipment, or employees.
- (14) Except for the cutting of holes in floors for chutes, holes through which to drop materials, preparation of storage space, and similar necessary preparatory work, you must begin the demolition of exterior walls and floor construction at the top of the structure and proceed downward. You must remove and drop each story of exterior wall and floor construction into the storage space before commencing the removal of exterior walls and floors in the story next below.
- (15) You must not permit workers to carry on a demolition operation which will expose persons working on a lower level to danger.
- (16) You must ((completely)) protect employee entrances to multistory structures being demolished by sidewalk sheds or canopies, or both, providing protection from the face of the building for a minimum of 8 feet. All such canopies must be at least two feet wider than the building entrances or openings (one foot wider on each side thereof), and must be capable of sustaining a load of 150 pounds per square foot.
- (17) You must withdraw, drive in, or bend over nails protruding  $((\frac{\text{nails in}}{\text{nails protruding }}))$  from boards, planks  $((\frac{\text{and}}{\text{nails protruding }}))$  as soon as the same is removed from the structure being demolished.
- ((\frac{(18) You must sprinkle any material to be removed which will cause dust to be formed, with water to lay the dust incidental to its removal.))

AMENDATORY SECTION (Amending WSR 16-09-085, filed 4/19/16, effective 5/20/16)

- WAC 296-155-780 Stairs, passageways, and ladders. (1) You must only use those stairways, passageways, and ladders, designated as means of access to the structure of building. Other access ways must be entirely closed off at all times.
- (2) You must periodically inspect all stairs, passageways, ladders and incidental equipment thereto, which are covered by this section and maintain them in a clean safe condition.
  - (3) You must secure all ladders in position.
- (4) In a multistory building, when a stairwell is being used, you must properly illuminate by either natural or artificial means, and completely and substantially ((eovered)) cover over at a point not less than two floors below the floor on which work is being performed. Access to the floor where the work is in progress must be through a properly lighted, protected, and separate passageway.

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AMENDATORY SECTION (Amending WSR 16-09-085, filed 4/19/16, effective 5/20/16)

- **WAC 296-155-785 Chutes.** (1) You must not drop any material to any point lying outside the exterior walls of the structure unless the area is ((effectively)) protected in accordance with WAC 296-155-775(12).
- (2) All materials chutes, or sections thereof, at an angle of more than 45° from the horizontal, must be entirely enclosed, except for openings equipped with closures at or about floor level for the insertion of materials. The openings must not exceed 48 inches in height measured along the wall of the chute. At all stories below the top floor, you must keep such openings closed when not in use.
- (3) You must install a ((substantial)) gate in each chute at or near the discharge end. A competent employee must be assigned to control the operation of the gate, and the backing and loading of trucks.
- (4) When operations are not in progress, you must securely close off the area surrounding the discharge end of a chute.
- (5) You must protect any chute opening, into which workers dump debris, by a (( $\frac{36}{1}$ ))  $\frac{39}{1}$  and (( $\frac{42}{1}$ ))  $\frac{45}{1}$  inches above the floor or other surface on which the employees stand to dump the material. You must solidly cover over any space between the chute and the edge of openings in the floors through which it passes.
- (6) Where the material is dumped from mechanical equipment or wheelbarrows, you must provide a securely attached toeboard or bumper, not less than 4 inches thick and 6 inches high, at each chute opening.
- (7) Chutes must be designed and constructed of such strength as to eliminate failure due to impact of materials or debris loaded therein.

AMENDATORY SECTION (Amending WSR 16-09-085, filed 4/19/16, effective 5/20/16)

WAC 296-155-790 Removal of materials through floor openings. Any openings cut in a floor for the disposal of materials must be no larger in size than 25% of the aggregate of the total floor area, unless the lateral supports of the removed flooring remain in place. Floors weakened or otherwise made unsafe by demolition operations must be shored to carry ((safely)) the intended imposed load from demolition operations.

<u>AMENDATORY SECTION</u> (Amending WSR 16-09-085, filed 4/19/16, effective 5/20/16)

WAC 296-155-795 Removal of walls, masonry sections, and chimneys. (1) You must not permit masonry walls, or other sections of masonry, to fall upon the floors of the building in such masses as to exceed the safe carrying capacities of the floors.

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- (2) You must not permit any wall section, which is more than one story in height, to stand alone without lateral bracing, unless such wall was originally designed and constructed to stand without such lateral support, and is in a condition safe enough to be self-supporting. You must leave all walls in a stable condition at the end of each shift.
- (3) You must not permit employees to work on the top of a wall when weather conditions constitute a hazard.
- (4) You must not cut or remove structural or load-supporting members on any floor until all stories above such a floor have been demolished and removed. This provision must not prohibit the cutting of floor beams for the disposal of materials or for the installation of equipment, provided that the requirements of WAC 296-155-790 and 296-155-800 are met.
- (5) You must plank solid floor openings within 10 feet of any wall being demolished, except when employees are kept out of the area below.
- (6) In buildings of "skeleton-steel" construction, the steel framing may be left in place during the demolition of masonry. Where this is done, you must clear all steel beams, girders, and similar structural supports of all loose material as the masonry demolition progresses downward.
- (7) You must provide walkways or ladders to enable employees to safely reach or leave any scaffold or wall.
- (8) You must not demolish walls, which serve as retaining walls to support earth or adjoining structures, until such earth has been properly braced or adjoining structures have been properly underpinned.
- (9) You must not use walls((, which are to serve)) as retaining walls against which debris will be piled, unless <u>such walls are</u> capable of ((<del>safely</del>)) supporting the imposed load.

<u>AMENDATORY SECTION</u> (Amending WSR 16-09-085, filed 4/19/16, effective 5/20/16)

- WAC 296-155-810 Catch platforms. (1) During the demolition of the exterior walls of a structure originally more than 70 feet high, you must erect catch platforms along the exterior faces of such walls where necessary to prevent injury to persons working below.
- (2) You must construct and maintain such catch platforms not more than 3 stories below the story from which the exterior walls are being removed, until the demolition has progressed to within 3 stories of the ground level.
- (3) Catch platforms must not be less than 5 feet in width measured in a horizontal distance from the face of the structure and constructed of outriggers and planks. You must lay planks tight together and without openings between the planks and the wall.

Note: Catch platforms may be constructed of other approved materials of equal strength and security against falling material.

(4) Catch platforms must ((be capable of sustaining a uniform live load of not less than 125 pounds per square foot)) meet the strength and stability requirements of supported scaffolds in chapter 296-874 WAC.