Chapter 296-811 WAC
Safety Standards for Fire Brigades

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This book contains rules for Safety Standards for fire brigades, as adopted under the Washington Industrial Safety and Health Act of 1973 (Chapter 49.17 RCW).

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DOSH CONTACT INFORMATION:

- Physical address: 7273 Linderson Way, Tumwater, WA 98501-5414, located off I-5 Exit 101 south of Tumwater.
- Mailing address: DOSH Standards and Information, PO Box 44810, Olympia, WA 98504-4810.
- Information telephone number is 1-800-4BESAFE

Also available on the DOSH web site:

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296-811-099 Definitions.

Buddy-breathing device. An equipment accessory for self-contained breathing apparatus (SCBA) that permits a second person (a “buddy”) to share the air supply used by the SCBA wearer.

Extinguisher classification. The letter classification given an extinguisher to designate the class or classes of fires on which that extinguisher will be effective. For example, use a Class A extinguisher on a Class A fire. See also fire classifications.

Portable fire extinguishers are classified for use on certain classes of fires and are rated within that class for relative extinguishing effectiveness at a temperature of plus 70°F by nationally recognized testing laboratories. This is based upon fire classifications and fire extinguishment potentials as determined by fire tests.

Note: The classification and rating system described in this section is used by Underwriters' Laboratories, Inc., and Underwriters' Laboratories of Canada, and is based on extinguishing preplanned fires of determined size and description as follows:

<table>
<thead>
<tr>
<th>Extinguisher Class</th>
<th>Fire Test for Classification and Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>Wood and excelsior fires excluding deep-seated conditions.</td>
</tr>
<tr>
<td>Class B</td>
<td>Two-inch depth gasoline fires in square pans.</td>
</tr>
<tr>
<td>Class C</td>
<td>No fire test. Agent must be a nonconductor of electricity.</td>
</tr>
<tr>
<td>Class D</td>
<td>Special tests on specific combustible metal fires.</td>
</tr>
</tbody>
</table>

Extinguisher rating (see also “extinguisher classification”). The numerical rating, such as 2A, given to an extinguisher that indicates the extinguishing potential of the unit based on standardized tests developed by Underwriters' Laboratories, Inc.

Fire brigade. An organized group of employees whose primary employment is other than firefighting but who are knowledgeable, trained, and skilled in specialized firefighting operations based on site-specific hazards present at a single commercial facility or facilities under the same management.

Fire classifications. Fires are classified based on the types of burning materials:
### Types of Burning Materials

<table>
<thead>
<tr>
<th><strong>Fire Class</strong></th>
<th><strong>Types of Burning Materials</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class A</strong></td>
<td>Fires involving ordinary combustible materials such as paper, wood, cloth, and some rubber and plastic materials.</td>
</tr>
<tr>
<td><strong>Class B</strong></td>
<td>Fires involving flammable liquids, flammable gases, greases, and similar materials, and some rubber and plastic materials.</td>
</tr>
<tr>
<td><strong>Class C</strong></td>
<td>Fires involving energized (live) electrical equipment where it is important that the extinguishing agent not conduct electricity. (When electrical equipment is de-energized, it’s safe to use an extinguisher for Class A or B fires on it, since electricity is not an issue then.)</td>
</tr>
<tr>
<td><strong>Class D</strong></td>
<td>Fire involving combustible metals such as magnesium, titanium, zirconium, sodium, lithium, and potassium.</td>
</tr>
</tbody>
</table>

**Incipient fire stage.** A fire in the beginning stage that can be controlled or put out by portable fire extinguishers, or small hose systems, without the need for protective clothing or breathing apparatus.

**Inspection.** A visual check of fire protection systems and equipment to ensure they are in place, charged, and ready for use if there is a fire.

**Interior structural firefighting.** The physical activity of suppressing fire, rescuing people, or both, inside buildings or enclosed structures involved in a fire that is past the incipient stage.

**Maintenance.** Servicing fire protection equipment and systems to ensure they will perform as expected if there is a fire. Maintenance differs from inspection in that maintenance requires checking internal fittings, devices, and agent supplies, as well as correcting deficiencies found.

**Self-contained breathing apparatus (SCBA).** Self-contained breathing apparatus (SCBA) in which the air pressure in the breathing zone is higher than that of the immediate environment during both inhaling and exhaling.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-099, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-600, filed 12/20/05, effective 3/1/06.]
296-811-100 Scope.

This chapter applies if you choose to establish a fire brigade.

Note: Nothing in this chapter requires you to establish an employee fire brigade.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-100, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-100, filed 12/20/05, effective 3/1/06.]
**296-811-200 Establishing a fire brigade — Section contents.**

**Your responsibility:** To decide on brigade functions in the workplace and make sure brigade members are capable of doing them.

<table>
<thead>
<tr>
<th>You must meet the requirements...</th>
<th>in this section:</th>
</tr>
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<tbody>
<tr>
<td>Organizing statement</td>
<td>WAC 296-811-20005</td>
</tr>
<tr>
<td>Physical capability of brigade members</td>
<td>WAC 296-811-20010</td>
</tr>
</tbody>
</table>

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-200, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-200, filed 12/20/05, effective 3/1/06.]

**296-811-20005 Organizing statement.**

You must develop a written fire brigade policy that is available for inspection by employees or their designated representatives, that covers all of the following:

1. The role and responsibilities of the fire brigade in the workplace.
2. The basic organizational structure of the fire brigade.
3. The number of brigade members.
4. Type, amount, and frequency of training for brigade members according to the section Firefighting training, WAC 296-811-30010, in this chapter.

**Note:** You may also want to include:

1. Description of brigade members duties.
2. Line authority of each brigade officer.
3. Number of brigade officers.
4. Number of training instructors.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-20005, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-20005, filed 12/20/05, effective 3/1/06.]

**296-811-20010 Physical capability of brigade members.**

You must make sure brigade members who are assigned to fight interior structural fires are physically capable of doing this activity.

Do not permit employees with known physical limitations that can be reasonably identified, such as heart disease or seizure disorder, to participate in structural firefighting activities unless the employee has been released by a physician to do so.
**Note:** Not all brigade members need to be physically capable of fighting interior structural fires. Brigade members who are not physically capable of fighting interior structural fires may be assigned to other brigade duties that match their physical capabilities, such as pump operation or fire prevention inspection.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-20010, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-20010, filed 12/20/05, effective 3/1/06.]
296-811-300 Training — Section contents.

Your responsibility: To inform brigade members of special hazards in the workplace and train them for their brigade functions.

<table>
<thead>
<tr>
<th>You must meet the requirements...</th>
<th>in this section:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special hazards</td>
<td>WAC 296-811-30005</td>
</tr>
<tr>
<td>Firefighter training</td>
<td>WAC 296-811-30010</td>
</tr>
</tbody>
</table>

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-300, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-300, filed 12/20/05, effective 3/1/06.]

296-811-30005 Special hazards.

(1) You must develop, include in training, and make available to brigade members, written procedures that describe the following:

(a) The special hazards they may encounter in their workplace.

(b) The actions they need to take in situations that involve these hazards.

(2) You must inform brigade members of any changes to those hazards, or the actions to take, when changes happen.

Examples of special hazards include storing and using flammable liquids and gases, toxic chemicals, and radioactive substances.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-30005, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-30005, filed 12/20/05, effective 3/1/06.]

296-811-30010 Firefighting training.

(1) You must make sure training that a brigade member receives elsewhere that meets one or more requirements in Table 1, Training for brigade members, has been:

(a) Received within the past year;

(b) Documented as having been received, such as with a completion certificate.

(2) You must provide training frequently enough to keep brigade members able to do their functions satisfactorily and safely.

Note: You may choose to train more often, monthly or even weekly, for some equipment or techniques. Consult fire training resources, such as the International Fire Service Training Association, the National Fire Protection Association (NFPA), or the International Society of Fire Service Instructors, for recommendations about fire training schools or programs.
(3) You must make sure brigade members are trained according to Table 1, Training for Brigade Members.

<table>
<thead>
<tr>
<th>For these brigade members:</th>
<th>Provide training that is:</th>
<th>At these times:</th>
</tr>
</thead>
<tbody>
<tr>
<td>All brigade members, including leaders, trainers, and incident commanders.</td>
<td>Appropriate to their assigned duties and functions.</td>
<td>Initially before they do any fire brigade emergency activities; and Every year after initial training.</td>
</tr>
<tr>
<td></td>
<td>Appropriate to special hazards in the workplace.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Similar to that of reputable fire training schools.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A combination of hands-on and classroom experiences.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suited to the industry you are part of, such as oil refining or chemical processing.</td>
<td></td>
</tr>
<tr>
<td>Brigade members assigned to do interior structural firefighting.</td>
<td>All of the above plus the following: Specific training in interior structural firefighting.</td>
<td>All of the above plus the following: Every quarter.</td>
</tr>
<tr>
<td>Brigade members assigned as leaders, training instructors, or both.</td>
<td>All of the above plus the following: Additional training that is more comprehensive than that of other brigade members and appropriate to their assigned duties and functions.</td>
<td>As needed to maintain their expertise at a higher level than that of other brigade members.</td>
</tr>
</tbody>
</table>

Table 1 Training for Brigade Members

Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-30010, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-30010, filed 12/20/05, effective 3/1/06.
296-811-400 Equipment — Section contents.

Your responsibility: To provide brigade members with equipment and protective clothing appropriate for their brigade functions.

<table>
<thead>
<tr>
<th>You must meet the requirements...</th>
<th>in this section:</th>
</tr>
</thead>
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<td>Firefighting equipment</td>
<td>WAC 296-811-40005</td>
</tr>
<tr>
<td>Protective clothing</td>
<td>WAC 296-811-40010</td>
</tr>
<tr>
<td>Self-contained breathing apparatus’ (SCBAs)</td>
<td>WAC 296-811-40015</td>
</tr>
</tbody>
</table>

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-400, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-400, filed 12/20/05, effective 3/1/06.]

296-811-40005 Firefighting equipment.

(1) You must provide appropriate firefighting equipment for the fire brigade.

(2) You must inspect and maintain brigade firefighting equipment according to Table 2, Fire Brigade Equipment Inspection and Maintenance.

<table>
<thead>
<tr>
<th>Table 2 Fire Brigade Equipment Inspection and Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>For this equipment:</td>
</tr>
<tr>
<td>All brigade firefighting equipment.</td>
</tr>
<tr>
<td>Brigade respirators and portable fire extinguishers.</td>
</tr>
</tbody>
</table>

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-40005, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-40005, filed 12/20/05, effective 3/1/06.]

296-811-40010 Protective clothing.

You must provide appropriate protective clothing for fire brigade members who do interior structural firefighting. Make sure protective clothing is:

(1) Provided at no cost.

(2) Meets the requirements for foot, body, hand, eye, face, and head protection found in another chapter, Safety standards for firefighters, chapter 296-305 WAC.
### EXEMPTION:

Protective clothing requirements do not apply to the following fire brigade members:

1. Those who do not perform interior structural firefighting.
2. Those who use only standpipe systems or portable fire extinguishers to control or put out fires that are in the incipient stage only.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-40010, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 06-01-073, § 296-811-40010, filed 12/20/05, effective 3/1/06.]

#### 296-811-40015 Self-contained breathing apparatus’ (SCBAs).

1. Provide SCBAs, other than escape self-contained breathing apparatus’ (ESCBAs), and make sure they are used by each fire brigade member who does interior structural firefighting.

2. Make sure SCBAs do the following:
   
   a. Meet the requirements found in chapter 296-842 WAC, Respirators.
   
   b. Are positive-pressure or pressure-demand type.
   
   c. Use only compressed-air cylinders that meet department of transportation (DOT) and the National Institute for Occupational Safety and Health (NIOSH) requirements.
   
   d. Have a service life of at least thirty minutes, as required by 42 C.F.R., Part 84.
   
   e. Have an automatic alarm that can be heard when seventy-five to eighty percent of its service life has been used up.

Note: An SCBA can have a quick-disconnect valve or “buddy breathing” accessory only if the valve or accessory does not do any of the following:

1. Damage the SCBA.
2. Restrict the SCBA’s air flow.
3. Interfere with the SCBA’s normal operation.
4. The “buddy breathing” accessory or quick-disconnect valve need not be certified by NIOSH.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 17-18-075 (Order 16-17), § 296-811-40015, filed 09/05/2017, effective 10/06/2017. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 09-15-145, § 296-811-40015, filed 7/21/09, effective 9/1/09; 06-01-073, § 296-811-40015, filed 12/20/05, effective 3/1/06.]
296-811-50005 Brigade members in interior structural fires.

Important:

Nothing in this section is meant to prevent fire brigade members assigned to respond to fires from rescue activities in an immediately dangerous to life and health (IDLH) atmosphere before the whole team assigned to respond to fires has arrived.

(1) You must make sure at least two qualified fire brigade members go together into an IDLH atmosphere and remain in visual or voice contact with each other at all times.

(3) You must maintain standby assistance, with two people, as required by another section, Standby requirements for immediately dangerous to life or health (IDLH) conditions, WAC 296-842-19005.

Note: One of the two brigade members providing standby assistance can be assigned another role, such as safety officer, as long as the safety or health of any firefighter working the incident will not be jeopardized if the brigade member becomes unavailable through giving assistance or rescue.

Reference: More information on interior structural fires is located in another section, WAC 296-305-05001, Emergency fireground operations -- Structural.