

WAC 296-155-280 Temporary heating devices. (1) Ventilation.

(a) You must supply fresh air in sufficient quantities to maintain the health and safety of workers. Where natural means of fresh air supply is inadequate, you must provide mechanical ventilation.

(b) When heaters are used in confined spaces, you must take special care to provide sufficient ventilation in order to ensure proper combustion, maintain the health and safety of workers, and limit temperature rise in the area.

(2) Clearance and mounting.

(a) You must install temporary heating devices to provide clearance to combustible material not less than the amount shown in Table D-4.

(b) Temporary heating devices, which are listed for installation with lesser clearances than specified in Table D-4, may be installed in accordance with their approval.

TABLE D-4

Heating appliances	Minimum clearance, (inches)		
	Sides	Rear	Chimney connector
Room heater, circulating type	12	12	18
Room heater, radiant type	36	36	18

(c) You must not set heaters that are not suitable for use on wood floors directly upon them or other combustible materials. When such heaters are used, you must rest them on suitable heat insulating material or at least one-inch concrete, or equivalent. The insulating material must extend beyond the heater two feet or more in all directions.

(d) You must locate heaters used in the vicinity of combustible tarpaulins, canvas, or similar coverings at least 10 feet from the coverings. You must securely fasten the coverings to prevent ignition or upsetting of the heater due to wind action on the covering or other material.

(3) **Stability.** You must set heaters, when in use, horizontally level, unless otherwise permitted by the manufacturer's markings.

(4) Oil-fired heaters.

(a) Flammable liquid-fired heaters must be equipped with a primary safety control to stop the flow of fuel in the event of flame failure. Barometric or gravity oil feed are not considered a primary safety control.

(b) You must only use heaters designed for barometric or gravity oil feed with the integral tanks.

(c) Heaters specifically designed and approved for use with separate supply tanks may be directly connected for gravity feed, or an automatic pump, from a supply tank.

(5) Salamanders.

(a) **Coverage.** You must not use solid fuel salamanders in buildings and on scaffolds.

(b) General requirements.

(i) All solid fuel salamanders must be designed and constructed for use with solid fuel, that is, coal or coke.

(ii) Solid fuel salamanders must be equipped with a cover designed as part of the unit, to prevent spillage of burning material in case of tipover.

(iii) You must assemble salamanders in accordance with the instructions issued by the manufacturer.

(iv) You must maintain the safeguards engineered into the product and ensure that any replacement is equivalent thereto.

(v) You must store salamanders in such a manner as to prevent deterioration or damage to the unit.

(c) **Operation.**

(i) You must follow manufacturers' instructions.

(ii) Each time a salamander is placed in operation you must check it to ensure that it is functioning properly. You must check its operation periodically thereafter.

(iii) When concentrations of carbon monoxide attain quantities greater than 35 parts per million (0.0035 percent) to air volume at employee breathing levels, you must extinguish the salamander unless additional natural or mechanical ventilation is provided to reduce the carbon monoxide content to permissible limits.

(iv) Tests for presence of carbon monoxide must be made by a qualified person within one hour after the start of each shift and at least every 3 hours thereafter. If concentrations of carbon monoxide reach 20 parts per million to air volume, tests must be made more frequently to determine if there is a continuing increase of carbon monoxide concentration.

(v) You must maintain records of all tests including the date, time, results obtained, and person making tests, for the duration of the project.

(vi) You must not permit anyone to be within the area being heated by the salamanders except under the following circumstances: When tending the salamanders; when testing the atmosphere; or in emergency situations.

(vii) You must not permit anyone to enter the heated area until notification is given to another person located outside. You must make periodic checks to ensure the health and safety of employees entering the heated area.

(viii) When a salamander is being used, you must assign the responsibility for its operation and maintenance to a qualified employee.

(ix) You must ensure that salamanders are not moved, handled, or serviced while hot or burning, or while component parts are hot to the touch.

(x) You must set salamanders, when in use, level with the horizontal unless otherwise permitted by the manufacturer's markings. Salamanders must be designed so as not to tip over when placed on a surface inclined 25° to the horizontal.

(xi) If equivalent protection and safety is afforded by alternative design, the 25° limitation may be reduced.

(xii) You must not set salamanders that are not suitable for use on wood floors directly upon them or other combustible materials. When such salamanders are used you must rest them on suitable insulating material or at least one-inch concrete or equivalent. The insulating material must extend beyond the salamander two feet or more in all directions.

(xiii) You must locate salamanders used in the vicinity of tarpaulins, canvas, or similar coverings a safe distance from coverings and other combustible materials. The coverings must be securely fas-

tened to prevent ignition of the covering or upsetting of the salamanders due to wind action on the covering or other material.

(xiv) You must protect salamanders in use to prevent flame extinguishment.

(d) **Ventilation.**

(i) You must supply fresh air in sufficient quantities to maintain the health and safety of employees. Where natural means for fresh air supply is inadequate, you must provide mechanical ventilation. You must give particular attention to confined spaces and pockets where heat and fumes may accumulate and employees may be present (roof areas, peaks, basement).

(ii) When salamanders are used in confined spaces, you must take special care to provide sufficient ventilation in order to assure proper combustion, maintain the health and safety of employees, and limit temperature rise in the area.

(e) **Fueling.**

(i) Salamanders must be refueled only by a person trained in such operations.

(ii) Only a one day's supply of heater fuel must be stored inside a building in the vicinity of the salamander. General fuel storage must be outside the structure.

(iii) All fuel storage must be maintained a minimum of 25 feet from source of ignition.

(f) **Maintenance.**

(i) The user must comply with the maintenance instructions as provided by the manufacturer.

(ii) You must remove equipment showing evidence of deterioration or damage that constitutes a safety or health hazard from service.

(iii) Salamander repairs must be performed in accordance with the manufacturer's recommendations, and replacement parts must be equal to, the equivalent of, or the same as the original salamander equipment.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-280, filed 4/19/16, effective 5/20/16. Statutory Authority: Chapter 49.17 RCW. WSR 94-15-096 (Order 94-07), § 296-155-280, filed 7/20/94, effective 9/20/94; Order 76-29, § 296-155-280, filed 9/30/76; Order 74-26, § 296-155-280, filed 5/7/74, effective 6/6/74.]