

Seattle Fire Department

Permit Conditions

2902-Minor
2903-Major

Repair Garage with Hazardous Activities

THIS PERMIT SHALL BE KEPT ON THE PREMISES DESIGNATED HEREIN AT ALLTIMES AND SHALL BE READILY AVAILABLE FOR INSPECTION BY THE FIRE CODE OFFICIAL. [SFC 105.3.5]

LIMITED SPRAY FINISHING AND SPRAY FINISHING REQUIRE SEPARATE PERMITS [SFC 105.3.5]

GENERAL:

1. The smoking or carrying of a lighted pipe, cigar, cigarette or any other type of smoking paraphernalia or material is prohibited at all times in the repair garage area(s). [SFC 310.1, 2311.3.2]
2. Smoking, or other sources of ignition shall be prohibited within 25 feet of where conditions are such as to make smoking a hazard, and in spaces where flammable or combustible materials are stored or handled. [SFC 310.2, 5003.7.1]
3. The *fire code official* is authorized to order the posting of "No Smoking" signs in a conspicuous location. The content, lettering, size, color and location of required "No Smoking" signs shall be *approved*. [SFC 310.3]
4. A portable fire extinguisher with a minimum rating of 40 BC shall be within 30 feet of the following:
 - service area(s),
 - parts washers,
 - hot work area(s)
 - flammable/combustible liquid storage and use area(s)[SFC Section 906]
5. Waste oil, motor oil and other Class IIIB liquids shall be stored in *approved* tanks or containers, which are allowed to be stored and dispensed from inside repair garages. [SFC 2311.2.2]
6. Crankcase drainings shall be classified as Class IIIB liquids unless otherwise determined by testing. [SFC 2311.2.2.2]
7. Garage floor drains, where provided, shall drain to *approved* oil separators or traps discharging to a sewer in accordance with the International Plumbing Code. [SFC 2311.2.3]
8. Contents of oil separators, traps and floor drainage systems shall be collected at sufficiently frequent intervals and removed from the premises to prevent oil from being carried into the sewers. [SFC 2311.2.3]
9. Self-closing metal cans shall be used for oily waste. [SFC 2311.2.3.2]
10. Sources of ignition shall not be located within 18 inches (457 mm) of the floor and shall comply with Chapters 3 and 35. [SFC 2311.3]
11. Storage of incompatible materials shall be separated from flammable and combustible liquids by a minimum distance of 20 feet, isolated from each other by a noncombustible partition extending not less than 18 inches above, and to the sides of the stored materials, or stored in hazardous material storage cabinets.

Exception: Containers of solids and liquids having a capacity of less than 5 pounds or ½ gallon when stored in quantities not exceeding exempt amounts. [SFC 5003.9.8]
12. Storage of flammable or combustible liquids in excess of 5 gallons shall be stored in approved safety cans or original containers. [SFC 5704.3.1.1]

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13. Storage of quantities of flammable and combustible liquids in excess of 10 gallons shall be stored in an approved flammable liquids storage cabinet. Quantities not exceeding 10 gallons are allowed to be stored outside of a cabinet when in approved containers. [SFC 5704.3.4.4]

PARTS WASHING:

14. Class IA liquids shall not be used for cleaning. [SFC 5705.3.6.1]
15. Cleaning with Class IB, IC or II liquids shall be conducted as follows:
- In a parts cleaner listed, labeled and approved for the purpose.
 - In a room or building constructed and approved for quantities exceeding the MAQ per control area. [SFC 5705.3.6.1]
16. Solvents shall be classified and shall be compatible with the machines within which they are used. [SFC 5705.3.6.2.1]
17. The quantity of solvent shall not exceed the *listed* design capacity of the machine. [SFC 5705.3.6.2.2]
18. Machines without remote solvent reservoirs and machines with remote solvent reservoirs using Class I liquids, shall have quantities limited to the following: [SFC 5705.3.5.1, 5705.3.6.2.3]
- | Solvent Class | In Unsprinklered Buildings | In Sprinklered Buildings |
|---------------|----------------------------|--------------------------|
| I-B and I-C | 30 gallons | 60 gallons |
| II | 30 gallons | 60 gallons |
| III-A | 80 gallons | 160 gallons |
19. Machines with remote solvent reservoirs using Class II liquids shall be limited to 35 gallons per machine. The total quantities shall not exceed an aggregate of 240 gallons per control area in unsprinklered buildings and an aggregate of 480 gallons per control area in sprinklered buildings. [SFC 5705.3.6.2.3]
20. Machines with remote solvent reservoirs using Class IIIA liquids shall be limited to 80 gallons per machine. [SFC 5705.3.6.2.3]
21. Work areas of machines with remote solvent reservoirs shall not be used for immersion soaking of parts. [SFC 5705.3.6.2.4]
22. Multiple machines shall be separated from each other by a distance of not less than 30 feet or by a minimum 1-hour fire barrier. [SFC 5705.3.6.2.5]
23. Machines shall be located in areas that are adequately ventilated to prevent accumulation of vapors. [SFC 5705.3.6.2.6]
24. Gas detectors is required to be installed in repair garages for vehicles using nonodorized gases such as hydrogen and nonodorized LNG. [SFC 2311.8.9]

INCIDENTAL STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS:

25. Defective containers, cylinders and tanks shall be removed from service, repaired or disposed of in an *approved* manner. [SFC 5003.2.6.2]

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26. Hazardous materials in any quantity shall not be released into a sewer, storm drain, ditch, drainage canal, creek, stream, river, lake or tidal waterway or on the ground, sidewalk, street, highway or into the atmosphere. [SFC 5003.3]
27. When hazardous materials are released in quantities reportable under state, federal or local regulations, the *fire code official* shall be notified. [SFC 5003.3.1]
28. Safety Data Sheets (SDS) shall be readily available on the premises for hazardous materials regulated by this permit. [SFC 5003.4]
29. Only *approved* containers and portable tanks shall be used for the storage of Class I, II and IIIA liquids. [SFC 5704.3.1]
30. Where liquid storage cabinets are required, such cabinets and storage shall be in accordance with Sections 5704.3.2.1.1 through 5704.3.2.1.4 [SFC 5704.3.2]
31. Storage of any liquids, including stock for sale, shall not be stored near or be allowed to obstruct physically the route of egress. [SFC 5704.3.3.3]
32. Storage of empty containers, previously used for the storage of flammable liquids, unless free from explosive vapors, shall be stored and counted as filled. [SFC 5704.3.3.4]
33. Shelving shall be of *approved* construction, seismically braced and anchored. [SFC 5704.3.3.5]
34. Storage on shelves is allowed provided storage is orderly and such shelves are metal, or wood at least 1 inch nominal thickness. Shelves shall be provided with a lip or guard. [SFC 5704.3.3.5.1, 5704.3.3.5.2]
35. Flammable liquids (Class IA, IB, and IC) are allowed to be stored in basements protected throughout by an *approved* sprinkler system in the following amounts: [SFC 5704.3.5.1]
 - Class IA liquids shall not exceed 10 gallons.
 - The aggregate quantity of Class IA, IB and IC liquids shall not exceed 30 gallons.
 - Class I liquids in excess of 10 gallons, in basements, shall be stored in *approved* storage cabinets.
36. Combustible liquids (Class II, IIIA and IIIB) are allowed to be stored in basements protected throughout by an *approved* sprinkler system in the following amounts: [SFC 5704.3.5.1]
 - Class II not to exceed 30 gallons
 - Class IIIA not to exceed 80 gallons
 - Class IIIB not to exceed 3,300 gallons
37. A maximum of 1,100 gallons of liquids stored in closed containers or portable tanks is allowed adjacent to a building located on the same premises, provided that:
 - a. Building does not exceed one story in height
 - b. Exterior building wall shall have a fire resistance rating of not less than 2 hours
 - c. No horizontal openings within 10 feet of storage, above grade
 - d. No horizontal openings within 50 feet of storage, below grade[SFC 5704.4.2.4]

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38. Storage areas shall be protected against tampering or trespassers by fencing or other *approved* control measures. [SFC 5704.4.4]
39. The storage area shall be kept free from weeds, debris and combustible materials for a minimum distance of 15 feet. [SFC 5704.4.6]
40. Adequate grounding and bonding shall be provided when transferring or dispensing Class I liquids. [SFC 5705.3.2]

HOT WORK:

41. Flammable and combustible liquid storage and dispensing shall be separated from hot work operations by a minimum of 50 feet. [SFC 3501.3]
42. Management shall designate a facility employee to be the "responsible person" who shall be responsible for overseeing the onsite hot workers to ensure that required hot work safety measures are taken to prevent fires and fire spread [SFC 3502.1, Chapter 2 – "Definitions"]
43. The "responsible person" shall be trained in the safety and fire safety considerations concerned with hot work. [SFC 3502.1, Chapter 2- "Definitions"]
44. Where the hot work area is accessible to persons other than the operator of the hot work equipment, conspicuous signs shall be posted to warn others before they enter the hot work area. Such signs shall display the following warning: [SFC 3503.6]

**CAUTION
HOT WORK IN PROGRESS
STAY CLEAR**

45. Hot work areas shall not contain combustibles or shall be provided with appropriate shielding to prevent sparks, slag or heat from igniting exposed combustibles. [SFC 3504.1.1]
46. Openings or cracks in walls, floors, ducts or shafts within the hot work area shall be tightly covered. [SFC 3504.1.2]
47. Floors shall be kept clean within the hot work area. [SFC 3504.1.3]
48. Partitions segregating hot work areas from other areas of the building shall be noncombustible. Partitions shall prevent the passage of sparks, slag, and heat from the hot work area. [SFC 3504.1.5]
49. Hot work shall not be performed on containers or equipment that contains or has contained flammable liquids, gases or solids until the containers and equipment have been thoroughly cleaned, inerted or purged;
Exception: "hot tapping" shall be allowed on tanks and pipe lines when such work is to be conducted by qualified personnel. [SFC 3504.1.7]
50. A **fire watch** shall be provided during hot work activities and shall continue for a minimum of **30 minutes** after the conclusion of the work. The fire code official or the "responsible manager" is authorized to extend the fire watch based on the hazards or work being performed. [SFC 3504.2.1]
51. The individuals responsible for performing the hot work and individuals responsible for providing the fire watch shall be trained in the use of portable fire extinguishers. [SFC 3504.2.4]

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52. At least once a day, and before hot work is permitted, a pre-hot-work check shall be conducted by the responsible person to ensure that all equipment is safe and hazards are recognized and protected. A report of the check shall be kept at the work site during the work and available upon request. [SFC 3504.3]
53. The pre-hot-work check shall determine all of the following:
1. Hot work equipment to be used shall be in satisfactory operating condition and in good repair.
 2. Hot work site is clear of combustibles or combustibles are protected.
 3. Exposed construction is of noncombustible materials or, if combustible, then protected.
 4. Openings are protected.
 5. Floors are kept clean.
 6. No exposed combustibles are located on the opposite side of partitions, walls, ceilings or floors.
 7. Fire watches, where required, are assigned.
 8. *Approved* actions have been taken to prevent accidental activation of suppression and detection equipment in accordance with Sections 3504.1.8 and 3504.1.9.
 9. Fire extinguishers and fire hoses (where provided) are operable and available. [SFC 3504.3.1]

54. Oxygen and fuel gas used for hot work shall be limited inside buildings in accordance with the following:

Type of Gas	Maximum Aggregate Quantity	SFC References
Acetylene and other nonliquefied fuel gases	1,000 cu. feet in unsprinklered buildings 2,000 cu. feet in sprinklered buildings	Table 5003.1.1(1)
LPG and other liquefied fuel gases	735 lbs. water capacity (300 lbs. LPG) [72 lbs water capacity (30 lbs LPG) within the Fire District]	6109.10
Compressed oxygen	1,500 cu. feet in unsprinklered buildings 3,000 cu. feet in sprinklered buildings	Table 5003.1.1(1)
Cryogenic Oxidizer Liquid oxygen (LOX)	45 gallons in unsprinklered buildings 90 gallons in sprinklered buildings	Table 5003.1.1(1)

[SFC Table 5003.1.1(1)]

ELECTRIC ARC HOT WORK:

55. The frame or case of electric hot work machines, except internal-combustion-engine-driven machines, shall be adequately grounded. [SFC 3506.1]
56. Welding return currents from the work to the machine shall have proper electric contact at joints. The electric contact shall be periodically inspected. [SFC 3506.2]
57. Electrodes (i.e. welding rods) shall be removed from the holders when electric arc hot work is discontinued for any period of 1 hour or more. The holders shall be located to prevent accidental contact and the machines shall be disconnected from the power source. [SFC 3506.3]
58. A switch or circuit breaker shall be provided so that fixed electric welders and control equipment can be disconnected from the supply circuit. The switch or circuit breaker shall be marked EMERGENCY DISCONNECT and shall be visible from the equipment. [SFC 3506.4]
59. Damaged cables shall be removed from service until they have been properly repaired or replaced. [SFC 3506.5]