

# Seattle Fire Department

## Permit Conditions

8001

Site Address: \_\_\_\_\_

Inspector: \_\_\_\_\_

### Incidental Storage and Use of Flammable and Combustible Liquids Less Than or Equal to 30 Gallons

#### NOTICE

**This permit shall be kept on the premises designated herein at all times and shall be readily available for inspection by the fire code official. (SFC 105.3.5)**

1. Safety Data Sheets (SDS) for all hazardous materials shall be either readily available on the premises as a paper copy, or where approved, shall be permitted to be readily retrievable by electronic access. (SFC 407.2)
2. Individual containers, packages and cartons shall be identified, marked, labeled and placarded in accordance with federal regulations and applicable state laws. (SFC 5703.5.3)
3. Electrical wiring and equipment shall be installed and maintained in accordance with SFC Section 603 and NFPA 70. (SFC 5703.1)
4. Approved portable fire extinguishers shall be provided in accordance with SFC Section 906. A minimum rated 40BC fire extinguisher shall be located within 30 feet of all flammable and combustible liquid storage and use. (SFC 5703.2.1 and SFC 906.3.2)
5. Smoking is prohibited. The fire code official is authorized to order the posting of "No Smoking" signs in a conspicuous location in each structure or location. The content, lettering, size, color and location of required "No Smoking" signs shall be approved. A posted "No Smoking" sign shall not be obscured, removed, defaced, mutilated or destroyed. (SFC 310.1 through SFC 310.5)
6. Combustible materials, including flammable or combustible liquids, shall not be stored in exits or enclosures for stairways and ramp. Storage of any liquids, including stock for sale, shall not be stored near or be allowed to obstruct physically the route of egress. (SFC 314.3, SFC 315.3.2 and SFC 5704.3.3.3)
7. Combustible material shall not be stored in boiler rooms, mechanical rooms, electrical equipment rooms or in fire command centers as specified in Section 508.1.5. (SFC 315.3.3)
8. In all occupancies, quantities of flammable and combustible liquids in excess of 10 gallons (38 L) used for maintenance purposes, demonstration, treatment, and laboratory work, and the operation of equipment shall be stored in liquid storage cabinets in accordance with Section 5704.3.2. Quantities not exceeding 10 gallons (38 L) are allowed to be stored outside of a cabinet where in approved containers located in private garages or other approved locations. (SFC 5704.3.4.4)
9. The design and construction of storage cabinets shall be as follows:
  1. Cabinets shall be listed in accordance with UL 1275 or constructed of approved wood or metal in accordance with the following:
    - i. Unlisted metal cabinets shall be constructed of steel having a thickness of not less than 0.044 inch (1.12 mm) (18 gage). The cabinet, including the door, shall be double walled

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- with 1-1/2 - inch (38 mm) airspace between the walls. Joints shall be riveted or welded and shall be tight fitting.
- ii. Unlisted wooden cabinets, including doors, shall be constructed of not less than 1-inch (25 mm) exterior grade plywood. Joints shall be rabbeted and shall be fastened in two directions with wood screws. Door hinges shall be of steel or brass. Cabinets shall be painted with an intumescent-type paint. (SFC 5704.3.2.1)
10. Cabinets shall be provided with a conspicuous label in red letters on contrasting background that reads: FLAMMABLE—KEEP FIRE AWAY. (SFC 5704.3.2.1.2)
  11. Materials that will react with water or other liquids to produce a hazard shall not be stored in the same room with flammable and combustible liquids except where stored in accordance with Section 5003.9.8. (SFC 5704.3.3.2)
  12. The storage of empty containers previously used for the storage of flammable or combustible liquid, are counted as full containers. Containers, when emptied, shall have the covers or plugs immediately replaced in openings. (SFC 5704.3.3.4)
  13. Shelving used for the storage of flammable or combustible liquids under 10 gallons shall be of approved construction, adequately braced and anchored. Seismic requirements shall be in accordance with the International Building Code and the following:
    1. **Use of wood.** Wood of not less than 1 inch (25 mm) nominal thickness is allowed to be used as shelving, racks, dunnage, scuff boards, floor overlay and similar installations.
    2. **Displacement protection.** Shelves shall be of sufficient depth and provided with a lip or guard to prevent individual containers from being displaced.

**Exception:** Shelves in storage cabinets or on laboratory furniture specifically designed for such use.
    3. **Orderly storage.** Shelf storage of flammable and combustible liquids shall be maintained in an orderly manner. (SFC 5704.3.3.5 through 5704.3.3.5.3)
  14. Class I, II, and IIIA liquids shall be allowed to be stored in basements in amounts not exceeding the maximum allowable, 30 gallons, provided that automatic suppression and other fire protection systems are provided in accordance with Chapter 9. (SFC 5704.3.5.1)
  15. Containers having less than a 30-gallon (114 L) capacity that contain Class I or II liquids shall not be stacked more than 3 feet or two containers high, whichever is greater, unless stacked on fixed shelving or otherwise satisfactorily secured. (SFC 5704.3.5.2)
  16. Outdoor storage area shall be protected against tampering or trespassers where necessary and shall be kept free from weeds, debris and other combustible materials not necessary to the storage for a distance of 15 feet. (SFC 5704.4.2.3 and SFC 5704.4.6)
  17. Outdoor storage within the utility easement underneath high-voltage transmission lines shall be limited to noncombustible material. Storage of hazardous materials including, but not limited to, flammable and combustible liquids is prohibited.

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**Exception:** Combustible storage, including vehicles and fuel storage for backup power equipment serving public utility equipment, is allowed, provided that a plan indicating the storage configuration is submitted and approved. (SFC 316.6.2)

#### USING FLAMMABLE OR COMBUSTIBLE LIQUIDS FOR PLANT EXTRACTION:

18. Quantities of flammable and combustible liquids in excess of 10 gallons shall be stored in flammable liquid storage cabinets meeting the requirements of the Seattle Fire Code. (SFC 5707.3.4.4)
19. Class I liquids (example: ethanol) shall be transferred by one of the following methods:
  1. From original shipping containers with a capacity of 5.3 gallons or less
  2. From safety cans meeting UL30
  3. Through an approved closed piping system
  4. From containers or tanks by an approved pump taking suction through an opening in the top
  5. From containers or tanks by gravity through an approved self-closing or automatic closing valve when the area is provided with spill control and secondary containment in accordance with Seattle Fire Code Section 5703.4 (SFC 5705.2.4)
20. A minimum rated 2A-40BC fire extinguisher shall be located within 30 feet of all flammable and combustible liquid storage and use. (SFC 906, 5704.3.3.1)
21. Flammable or combustible liquids used for extraction processes that are boiled, distilled, or evaporated shall be located within a hazardous exhaust fume hood which is rated for exhausting flammable vapors or within a room specified in condition 22. The electrical equipment within the hazardous exhaust fume hood shall be rated for flammable atmospheres. Heating of flammable or combustible liquids over an open flame is prohibited. (SFC 3903.5)
22. The use of flammable and combustible liquids for liquid extraction process where the liquid is boiled, distilled or evaporated shall be located within a hazardous exhaust fume hood, rated for exhausting flammable vapors. Electrical with the fume hood shall be rated for flammable atmospheres. Processing shall be located in a building complying with the Seattle Building Code.[SFC 3903]
23. Smoking is prohibited. "No Smoking" signs shall be posted. (SFC 5003.7.1)
24. A building permit issued by the Seattle Department of Construction and Inspections (SDCI) is required for any modifications made to the building. If the occupancy of the building using flammable or combustible liquids for plant extraction is other than a Group F-1, a building permit for a change of occupancy is required from SDCI. If the quantity of hazardous materials exceeds the maximum allowable quantities per Chapter 50 of the SFC, the occupancy is required to be a Group H and will require the installation of automatic fire sprinkler system in addition to other safety features depending on the specific hazards within the building.[SFC 3903.1]
25. An electrical permit issued by SDCI is required any time electrical wiring is installed, altered, extended, or connected to any electrical equipment. [SFC 3903.1]

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26. A mechanical permit issued by SDCI is required for the installation of mechanical equipment such as exhaust or fume hood systems.[SFC 3903.1]