Seattle Fire Department
Permit Conditions

8002

Site Address: _____ Inspector: _____

Laboratory
Hazardous Material Quantities Not Exceeding MAQ Per Control Area

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) shall be readily available on the premises for hazardous materials regulated by this permit. SDS that are electronically available through an offsite vendor are acceptable for meeting this requirement. (SFC 5003.4)

2. Control area boundary descriptions shall be provided upon request from the Fire Prevention Division. (SFC 105.3)

3. A responsible official shall be designated to ensure that minimum amounts of hazardous materials necessary for demonstration, treatment or lab work are maintained and maximum allowable quantities of hazardous materials per control area are not exceeded. (SFC 105.3)

4. Where required by the fire code official, an application for, or renewal of, a permit shall include a HMIS that includes the following information:

    1. Product Name
    2. Component
    3. Chemical Abstract Service (CAS) number
    4. Location Where stored or used.
    5. Container size.
    6. Hazard classification
    7. Amount in storage
    8. Amount in use-closed systems
    9. Amount in use-open systems

    Prior to developing a HMIS, please contact the Special Hazards Unit of the Fire Prevention Division for specific guidelines, format and assistance. (SFC 5001.5.2)

5. Unless otherwise approved, visible hazard identification signs as specified in NFPA 704 shall be placed at entrances to locations where hazardous materials are stored, dispensed, used or handled in quantities requiring a permit. (SFC 5003.5)

6. Individual containers, cartons or packages shall be conspicuously marked or labeled in an approved manner. (SFC 5003.5.1)

7. Rooms or cabinets containing compressed gases shall be conspicuously labeled: COMPRESSED GAS. (SFC 5003.5.1)

8. Empty containers previously used for the storage of hazardous materials shall be free from residual material and vapor as defined by DOTn, R.C.R.A. or other regulating authority or maintained as specified for storage of hazardous material. (SFC 5003.2.5)

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9. Equipment, machinery and required detection and alarm systems associated with hazardous materials shall be maintained as specified by the manufacturer and in an operable condition. (SFC 5003.2.6)

10. Defective containers, cylinders and tanks shall be removed from service and repaired or replaced. (SFC 5003.2.6)

11. The fire code official shall be immediately notified when hazardous materials are released in quantities reportable under state, federal or local regulations, or when any spill or accidental release, inside or outside of a building, could present a fire or life safety hazard. (SFC 5003.3.1)

12. Provisions shall be made for controlling and mitigating unauthorized releases. (SFC 5003.3.1.2)

13. When an unauthorized discharge caused by primary container failure is discovered, the involved primary container shall be repaired or removed from service. (SFC 5003.3.1.3)

14. The person, firm or corporation responsible for an unauthorized discharge shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the jurisdiction. When deemed necessary by the fire code official, cleanup may be initiated by the fire department or by an authorized individual or firm. Costs associated with such cleanup shall be borne by the owner, operator or other persons responsible for the unauthorized discharge. (SFC 5003.3.1.4)

15. Smoking shall be prohibited and "NO SMOKING" signs shall be provided. (SFC 5003.7.1)

16. “NO SMOKING” Signs shall be of a durable material with red lettering on a white background and letters shall be not less than 3 inches in height and 1/2 inch in stroke. (SFC 105.3)

17. Open flames and high-temperature devices shall not be used in a manner that creates a hazardous condition and shall be listed for use with the hazardous materials stored or used. (SFC 5003.7.2)

18. Powered industrial trucks used in areas designated as hazardous (classified) locations in accordance with NFPA 70, shall be listed and labeled for use in the environment intended in accordance with NFPA 505. (SFC 309.2)

19. The maximum allowable quantity of hazardous materials stored and used in indoor control areas shall not exceed the amounts allowed by Tables 5003.1.1(1) and (2) and Table 5003.8.3.2. (SFC 5003.1.1)

20. Where storage cabinets are used to increase maximum allowable quantities per control area, such cabinets shall either be listed in accordance with UL 1275 or comply with the following:
    1. Cabinets shall be of steel having a thickness of not less than 0.0478 inch (1.2 mm) (No. 18 gage). The cabinet, including the door, shall be doubled walled with a 1.5-inch (38 mm) airspace between the walls. Joints shall be riveted or welded and shall be tight fitting. Doors shall be well fitted, self-closing and equipped with a self-latching device.
    2. The bottoms of cabinets utilized for the storage of liquids shall be liquid tight to a minimum height of 2 inches (51mm). (SFC 5003.8.7.1)

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21. Electrical equipment and devices within cabinets used for the storage of hazardous gases or liquids shall be in accordance with the NFPA 70. (SFC 5003.8.7.1)

22. Hazardous materials storage cabinets shall be clearly identified in an approved manner with red letters or a contrasting background to read: HAZARDOUS - KEEP FIRE AWAY. (SFC 5003.8.7.2)

23. Persons responsible for the operation of the laboratory shall be familiar with the chemical nature of the materials and the appropriate mitigation actions necessary in the event of fire, leak or spill. (SFC 5003.9.1)

24. Laboratories shall be secured against unauthorized entry and safeguarded in a manner approved by the fire code official. (SFC 5003.9.2)

25. Electrical wiring and equipment shall be installed in accordance with NFPA 70. (SFC 5003.9.4)

26. When processes or conditions exist where a flammable mixture could be ignited by static electricity, means shall be provide to prevent the accumulation of a static charge. (SFC 5003.9.5)

27. Materials that are sensitive to light shall be stored in containers designed to protect them from such exposure. (SFC 5003.9.6)

28. Materials that are shock sensitive shall be padded, suspended or otherwise protected against accidental dislodgement and dislodgement during seismic activity. (SFC 5003.9.7)

29. Incompatible hazardous materials in storage and storage of materials that are incompatible with materials in use shall be separated when the stored materials are in containers having a capacity of more than 5 pounds (2 kg) or 0.5 gallons (2 L). Separation shall be accomplished by:
    1. Segregating incompatible materials in storage by a distance of not less than 20 feet (6096 mm).
    2. Isolating incompatible materials in storage by a noncombustible partition extending not less than 18 inches above and to the sides of the stored material.
    3. Storing liquid and solid materials in hazardous materials storage cabinets.
    4. Storing compressed gases in gas cabinets or exhausted enclosures in accordance with 2012 SFC Sections 5003.8.5 and 5003.8.6. Materials that are incompatible shall not be stored within the same cabinet or exhausted enclosure. (SFC 5003.9.8)

30. Shelving shall be of substantial construction, and shall be braced and anchored in accordance with the seismic design requirements of the Seattle Building Code. (SFC 5003.9.9)

31. Shelving shall be treated, coated or constructed of materials that are compatible with the hazardous materials stored.
    (SFC 5003.9.9)

32. Shelves shall be provided with a lip or guard when used for the storage of individual containers.
    Exceptions:
    1. Storage in hazardous materials storage cabinets or laboratory furniture specifically designed for such use.
    2. Storage of hazardous materials in amounts not requiring a permit in accordance with Section 5001.5.

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(SFC 5003.9.9)

33. Hazardous material gas containers, cylinders and tanks in transit shall have their protective caps in place. (SFC 5003.10.1)

34. Containers, cylinders and tanks of highly toxic or toxic compressed gases in transit shall have their valve outlets capped or plugged with an approved closure device in accordance with Chapter 53. (SFC 5003.10.1)

35. Liquids in containers exceeding 5 gallons in a corridor or exit enclosure shall be transported on a cart or truck. Containers of hazardous materials having a hazard ranking of 3 or 4 in accordance with NFPA 704 and transported within corridors or exit enclosures, shall be on a cart or truck. Where carts and trucks are required for transporting hazardous materials, they shall be in accordance with Section 5003.10.3
    Exceptions:
    1. Two hazardous material liquid containers, which are hand carried in acceptable safety carriers.
    2. Not more than 4 drums not exceeding 55 gallons each, which are transported by suitable drum trucks.
    3. Containers and cylinders of compressed gases, which are transported by approved hand trucks, and containers and cylinders not exceeding 25 pounds which are hand carried.
    4. Solid hazardous materials not exceeding 100 pounds, which are transported by approved hand trucks, and a single container not exceeding 50 pounds, which is hand carried (SFC 5003.10.2)

36. Carts and trucks used to transport materials shall not obstruct or be left unattended within any part of a means of egress. (SFC 5003.10.3.5)

37. Incompatible materials shall not be transported on the same cart or truck. (SFC 5003.10.3.6)

38. Non-production laboratories are permitted to comply with Sections 5003.13.1 through 5003.13.4 of the SFC in lieu of Section 5003.8.3 (SFC 5003.13)

39. Class I, II or III liquids shall not be stored near exit doorways, stairways, or in location that would impede egress. (SFC 5704.3.3.3)

40. Fire extinguishers shall be selected, installed and maintained in accordance with SFC Section 906 and NFPA 10. (SFC 906.2)

HIGHER EDUCATION LABORATORIES

1. Higher education laboratories complying with SFC Chapter 38 are permitted to exceed the maximum allowable quantities (MAQ's) of hazardous materials in approved control areas. (SFC 3801.1)

2. Containers of materials that have the potential to become hazardous during prolonged storage shall be dated when first opened, and shall be managed in accordance with NFPA 45, Section 8.3.4.4.1. (SFC 3803.1.5)

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3. The maximum container size for all hazardous materials shall be 5.3 gallons (20 L) for liquids, 50 pounds (22.7 kg) for solids,100 cubic feet (2.83 m3) for health-hazard gases per SFC Table 5003.1.1(2) and 500 cubic feet (14.15 m3) for all other gases in accordance with SFC Table 5003.1.1(1).
   Exception: Hazardous waste collection containers, for other than Class I flammable liquids and Class II combustible liquids, are permitted to exceed 5.3 gallons (20 L) where approved. (SFC 3803.2.1)

4. Quantities of Class I flammable liquids in storage and use shall not exceed 8 gallons (30 L) per 100 square feet (9.29 m2) of Floor area. Densities shall be reduced by 25 percent on the 4th through 6th floors of the building, and by 50 percent above the 6th floor. Regardless of the density, the maximum allowable quantity per control area or laboratory suite shall not be exceeded.
   Exception: Designated hazardous waste collection areas or rooms within a laboratory suite or control area are not limited, but such materials shall not exceed the maximum allowable quantity per laboratory suite or control area. (SFC 3803.2.2)

5. Where laboratory suites are provided, they shall be constructed in accordance with SFC Chapter 38 and the Seattle Building Code. (SFC 3804.1)

6. Existing laboratories that do not have an existing Seattle Fire Department Permit will need to comply with SFC Section 3805 or 3806. (SFC 3805.1 and 3806.1)

7. Substantial alterations in existing buildings will need to comply with SFC Sections 3801 through 3804.