



Benicia Fire Department – Fire Prevention Policies

Subject: ABOVEGROUND STORAGE OF WASTE OIL

Section: C

Effective Date: April 2, 2009

Standard C-303

Page: 1 of 7

Revised Date: July 1, 2015

Authority: Benicia Municipal Code 8.28, and California Fire Code, Chapter 34.

Permit Required: To store waste oil in any aboveground storage tank. (Section 105.6 and 105.7 CFC)

Fees: Based on Resolution – Chapter 1.20, B.M.C. – Contact Fire and Life Safety Division.

DEFINITIONS:

APPROVED means acceptable to the Benicia Fire Department, Division of Fire and Life Safety.

COMBUSTIBLE LIQUID is a liquid having a flash point at or above 100° F.

CONTAINER means any approved vessel of 60 gallons or less capacity used for transporting or storing flammable or combustible liquids.

FLAMMABLE LIQUID is any liquid having a flash point below 100° F.

TANK means an approved aboveground tank of over 60 gallons, but not to exceed 660 gallons.

C.F.C. is the California Fire Code.

WASTE OIL are those waste liquids resulting from the use of Class III-B combustible liquids such as:

- Waste motor oil
- Hydraulic oil
- Lubricating oil
- Brake fluid
- Transmission fluid



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It shall not include the products classified as Class I, II, or III-A liquids or corrosives, toxic or highly toxic materials as defined in C.F.C Chapter 27.

I. GENERAL

- A. This standard shall apply to the storage of waste oil in above ground tanks or containers at service stations, marine service stations, machine shops, automotive and small engine repair facilities, and other facilities where waste oil is generated, but is incidental to the use of the business.
- B. Waste oil storage systems shall be used for storage of used oil only. No other materials may be placed in the tanks/containers. Dispensing into the tanks/containers shall be by gravity only, an approved pump, or by other means approved by the Division. Removal of the waste oil shall be by the means of a pump, vacuum truck, or by other approved means.
- C. All components, including drums, tanks, piping, valves, fittings and other related components, shall be designed and fabricated per nationally recognized standards. They shall have adequate strength and durability to withstand the pressures, structural stress and exposures to which they may be exposed.

II. PLANS

- A. Plans shall be submitted with the permit applications and shall indicate:
 - a. Methods of storage
 - b. Qualities to be stored
 - c. Distances from all buildings and property lines
 - d. Fire department access ways
 - e. Fire protection facilities
 - f. Provisions for diking, drainage and runoff

III. LOCATION

- A. The waste oil tank/containers shall be located as approved by the Division.
 - 1. Outside



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- i) For outside storage Table 3404.4.2 C.F.C. shall be used.
 - ii) Outside storage areas shall not be within five (5) feet of combustible walls, openings or combustible roof eave lines.
2. Inside
- i) Inside storage may be allowed.
 - ii) No storage allowed near exits or doorways
- B. Waste storage areas shall not be located more than 150 feet from an approved fire apparatus access road.
- C. Parking of vehicles is prohibited within five feet (5') of the tank/container.

EXCEPTION: A vehicle being serviced.

IV. CONTAINMENT

- A. Secondary containment shall be provided for all storage areas either inside or outside.
1. Secondary containment shall be of sufficient capacity to contain 110% of the volume of the largest single container, taking into consideration the displacement of all other containers.
 2. Provisions shall be made for draining the containment enclosure. Such drains shall not discharge to adjoining properties, natural watercourses, public sewers or storm drains.
 3. Storage areas and secondary containment enclosures subject to vehicular damage shall be protected by installation of minimum 4-inch steel concrete filled pipes (BOLLARDS). The pipes shall be placed as needed to protect the enclosure and tanks/containers. The bollards shall be a minimum of three feet (3') in height, with three feet (3') of pipe below grade, within a poured concrete foundation 1-1/2' in diameter.



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4. The entire enclosure and all areas within 15' of the waste oil storage shall be kept clear of all combustible materials (weeds, trash, etc.).

V. SIGNS

- A. Waste oil storage areas shall be signed as follows:

**WASTE OIL STORAGE
ONLY WASTE OIL SHALL BE PLACED IN CONTAINERS**

1. The signs shall be made of all-weather material.
2. The sign shall be red letters on a white background.
3. The lettering shall be a minimum of 3 inches in height and ½ inch in stroke.
4. The signs shall be posted on all exposed sides of the enclosure.

VI. INSPECTION

- A. Waste oil storage areas/enclosures and piping shall be visually inspected daily for evidence of leaks. Any indication of leakage shall be cause to remove the container or tank from service and removal of all products until the piping, tank or container has been replaced. Leaking or deteriorated tanks or containers shall be removed and disposed of in a manner approved. Leaking containers or tanks shall not be repaired for return to service.

VII. MONITORING

- A. Periodic sampling and lab analysis of the material in the storage tank may be required by the Division to determine compliance with the Standard.

VIII. DISPOSAL RECORDS

- A. The owner and/or proprietor of the business storing waste oil shall, upon request, furnish all waste disposal manifests or records.



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IX. STORAGE METHODS

1. TANKS

- A. Storage shall be limited to a single tank of steel, stainless steel, or approved vaulted tank, and shall be listed by a nationally recognized testing laboratory for storage of CLASS-I LIQUIDS. This allows for protection in case of improper storage or dumping into the tank.

EXCEPTION:

Quick-lubrication facilities and other approved facilities where there is no dispensing of flammable or combustible liquids. Tanks listed for CLASS-III LIQUIDS storage may be used.

- B. Storage tanks shall not exceed 550 gallons capacity.
- C. Approved vaulted tanks may be used to satisfy the requirements for secondary containment.

2. TANK SUPPORT

- A. The tanks shall be supported according to the C.F.C and C.B.C. The use of concrete saddles is preferred.

3. VENTING

- A. Storage tanks shall be adequately vented to prevent the development of either positive or negative pressure that might exceed the design pressure of the tank.
- B. Vent pipes shall be no less than 1-1/4 inch nominal diameter.
- C. Vent pipes shall terminate outside of the building at a point not less than eight (8) feet above the fill pipe opening and not less than 12 feet above the adjacent ground level.



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Vent pipes shall discharge vertically or horizontally and shall be arranged so that flammable vapors will not enter building openings, be trapped under eaves/overhangs, nor discharge into hazardous areas.

- D. Vent pipes shall not terminate within five (5) feet of any building openings.
- E. Piping shall be installed so as to drain toward the tank without traps where liquid can collect.
- F. Waste oil tanks shall be provided with an adequate emergency relief venting system to provide venting in case of exposure to fire – not to exceed 2.5 psig, internal pressure.

4. TANK CONNECTIONS

Other than vents

- A. Connections for all tank openings shall be liquid tight.
- B. Filling and draining of the tank shall be through openings in the top.
- C. Tanks shall be fitted with a level (of fluid) indicator or other approved device that will prevent overflow.

5. FIRE PROTECTION

- A. If in the determination of the Division, the installation requires extra protection the tank shall be:

- 1. Installation of a cinder block wall with all cells filled with concrete, or a concrete wall. The wall shall extend at least six inches (6”) above the top of the tank. An approved vaulted tank may substitute for this requirement.

- 6. Any storage tank which has been abandoned for a year shall be removed in a manner as prescribed by law.



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X. DRUM STORAGE – 55 GALLON

- A. The number of drums used for storage of waste oil shall not exceed three.
- B. A funnel shall be used for filling of drums to prevent spilling.
- C. All openings shall be kept closed when not in use.

XI. PERMIT

- A. The permit is valid for one year.
- B. The permit will be revoked if at any time this standard or any other requirement or code is violated.