5/13/91 PERMIT # 300-91

FEE 5.00

# PLANNING CLEARANCE

GRAND JUNCTION PLANNING DEPARTMENT

BLDG ADDRESS: 960 3rd Ave.

SUBDIVISION: Mill Hale Sub

BLDG # ____ BLK # 13 LOT # 17-19

TAX SCHEDULE NUMBER:
2945-231-07-016, 019

PROPERTY OWNER: Ted Sirkin

ADDRESS: 10314 Unit K Norris
Pacoima CA 91331

PHONE: ____

DESCRIPTION OF WORK AND INTENDED USE:
Storage of waste oil

SQ. FT. OF BLDG: ~~1,250~~ None

SQ. FT. OF LOT: 11,250

NUMBER OF FAMILY UNITS: —

NUMBER OF BUILDINGS ON PARCEL BEFORE THIS PLANNED CONSTRUCTION:
—

USE OF ALL EXISTING BUILDINGS:
Storage Lot

SUBMITTALS REQ'D: TWO (2) PLOT PLANS SHOWING PARKING, LANDSCAPING, SETBACKS TO ALL PROPERTY LINES, AND ALL STREETS WHICH ABUT THE PARCEL.

**********

**FOR OFFICE USE ONLY**

ZONE: I-2

SETBACKS: F — S 0 R 0

MAXIMUM HEIGHT: 65'

PARKING SPACES REQ'D: employee

LANDSCAPING/SCREENING: —

FLOODPLAIN: YES ____ NO X

GEOLOGIC HAZARD: YES ____ NO ____

CENSUS TRACT #: 8

TRAFFIC ZONE: 44

SPECIAL CONDITIONS: has been used as a storage lot

* Must meet all requirements of the Fire Dept.

**********

ANY MODIFICATION TO THIS APPRO[V] WRITING, BY THS DEPARTMENT. T[HIS] CANNOT BE OCCUPIED UNTIL A CER[T.O.] BUILDING DEPARTMENT (SECTION 3[15.])

ANY LANDSCAPING REQUIRED BY TH[IS] AN HEALTHY CONDITION. THE REPL[ACEMENT] OR ARE IN AN UNHEALTHY CONDITI[ON]

I HEREBY ACKNOWLEDGE THAT I HA[VE] CORRECT AND I AGREE TO COMPLY [WITH] COMPLY SHALL RESULT IN LEGAL AC[TION]

**********

UST BE APPROVED, IN
THIS APPLICATION
.O.) IS ISSUED BY THE
E.)

AINED IN AN ACCEPTABLE
ON MATERIALS THAT DIE

AND THE ABOVE IS
OVE. FAILURE TO

Bobbie MacIntyre
243-7788

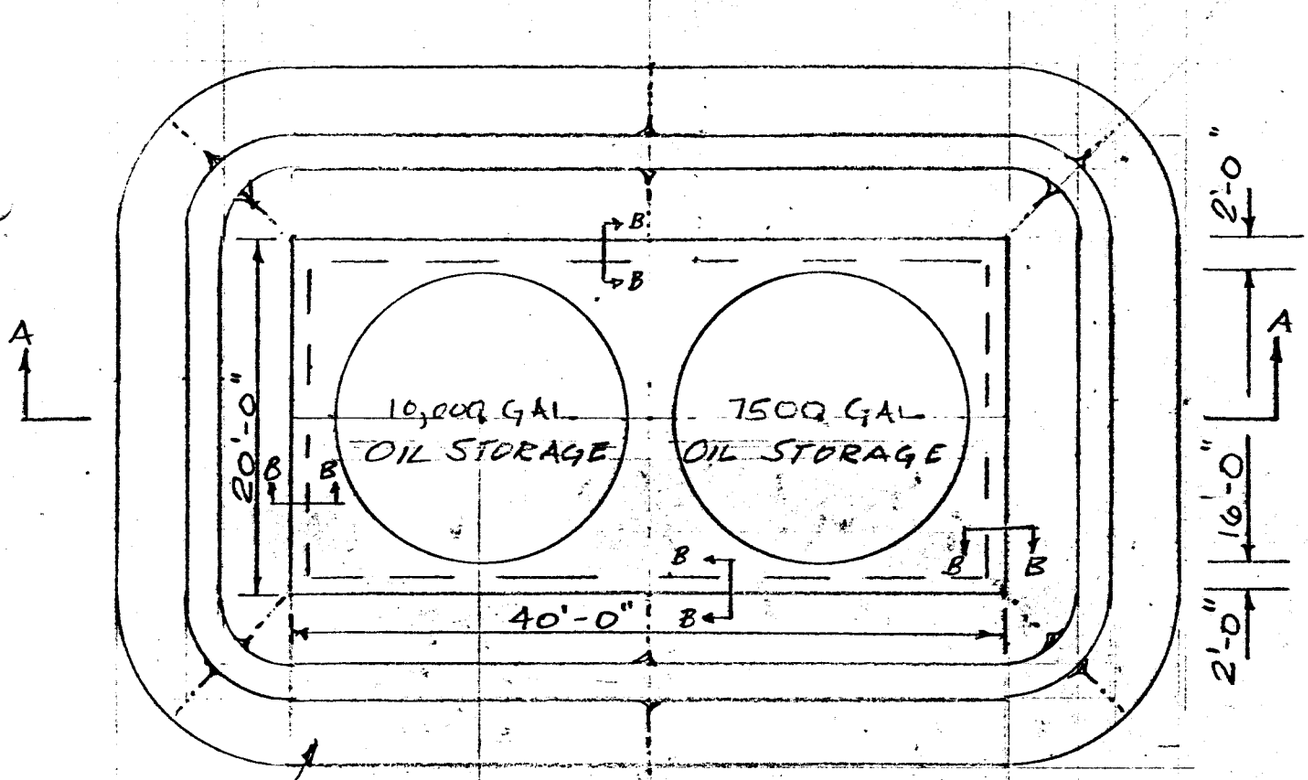
Bob Lee

Storage Tanks

DATE APPROVED: 5/13/91

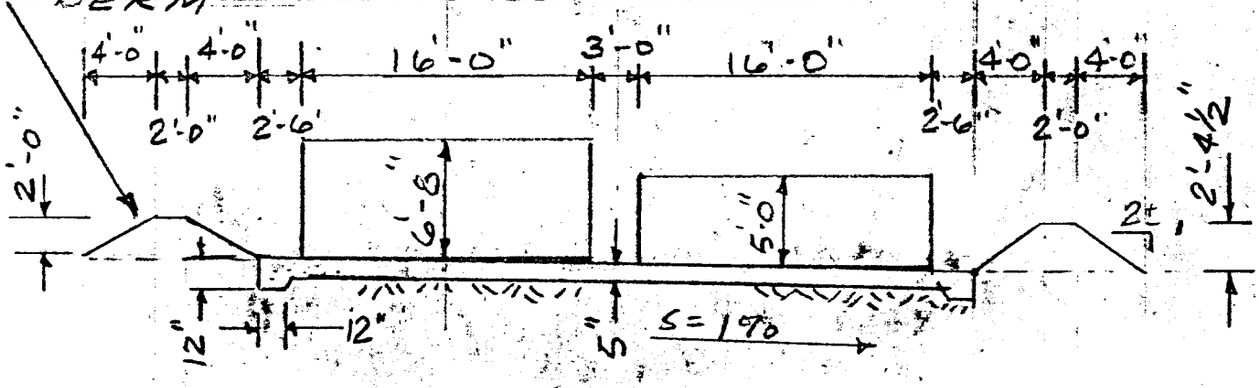
APPROVED BY: Kathy Portner

Karen S. Cox
SIGNATURE

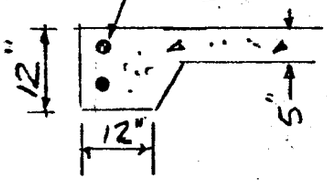



PLAN VIEW
SCALE 1" = 10'

EARTH BERM




SECTION A-A
SCALE: 1" = 10'




SECTION B-B
NOT TO SCALE

NOTES:

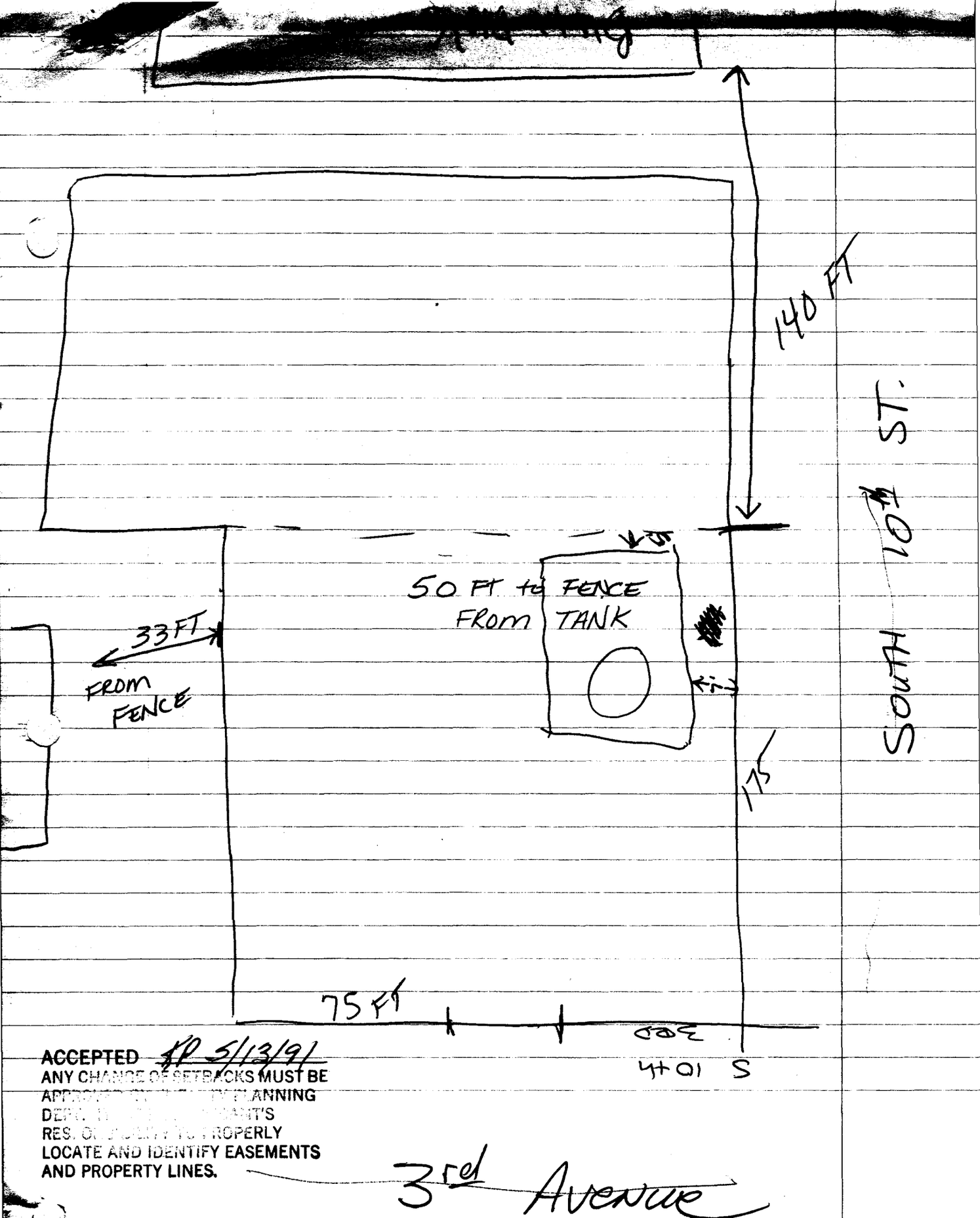
1. CONCRETE SHALL BE 3000 PSI AT 28 DAYS, TYPE II CEMENT, NO CALCIUM.
2. THE BOTTOM OF THE STORAGE TANKS SHALL BE FLUSH WITH THE FOUNDATION WITH NO UNEQUAL PRESSURE POINTS ACTING ON THE FOUNDATION.
3. BERM MATERIAL SHALL HAVE ADEQUATE CLAY CONTENT TO PRECLUDE OIL SEEPING THROUGH THE BERM IN CASE OF A SPILL. BERM MATERIAL SHALL BE APPROVED BY THE ENGINEER. THE BERM HAS A CONTAINMENT CAPACITY OF 10,053 GALLONS AT THE 2 FOOT DEEP LEVEL AND EXCLUDES THE AREA OCCUPIED BY THE STORAGE TANKS.
4. THE FOUNDATION SHALL BE PLACED ON NATURAL GROUND WITH NO GRAVEL BASE UNDERNEATH. ANY FILL MATERIAL REQUIRED UNDER THE SLAB SHALL BE APPROVED BY THE ENGINEER.

ACCEPTED 5/13/91
ANY CHANGES OR REVISIONS MUST BE APPROVED BY THE PLANNING DEPARTMENT'S
RESPONSIBILITY TO PROPERLY LOCATE AND IDENTIFY EASEMENTS AND PROPERTY LINES.

FOUNDATION DESIGN FOR STEVE COON
FOR OIL STORAGE TANKS-TRIANGLE PETROLEUM
~~FOR LOTS 17 THROUGH 19 INCLUSIVE~~
BLOCK 13, MILLDALE SUBDIVISION
CITY OF GRAND JUNCTION, COLORADO
PROJECT NO. 911990-5

WAYNE H. LIZER
REGISTERED
PROFESSIONAL ENGINEER
STATE OF COLORADO
5/13/91


W. H. LIZER & ASSOCIATES
ENGINEERING & SURVEYING
576 25 ROAD · UNIT 8 · 241-1129
GRAND JUNCTION, COLORADO 81505




ACCEPTED 5/13/91
ANY CHANGE OF SETBACKS MUST BE
APPROVED BY PLANNING
DEPT. IT IS APPLICANT'S
RESPONSIBILITY TO PROPERLY
LOCATE AND IDENTIFY EASEMENTS
AND PROPERTY LINES.

3rd Avenue

City of Grand Junction, Colorado
81501-2668
250 North Fifth Street

24 June 1991

Katherine Portner
Senior Planner
City of Grand Junction Community Development Department
250 North 5th Street
Grand Junction, Colorado 81501

Re: Triangle Petroleum nka Western Waste Oil

Dear Kathy,

This letter is written to you for the purposes of confirming my discussions with Mr. Reekie of the Grand Junction Fire Department and to recommend releasing the planning clearance and building permit hold for Steve and Karen Coon, doing business as Western Waste Oil at 10th Street and Third Avenue in the City of Grand Junction.

Opening and operation of Western Waste Oil is expressly conditioned on full and complete compliance with the terms and requirements of a used oil storage and collection facility as defined in and pursuant to the Uniform Fire Code and the Resource Conservation and Recovery Act. This letter is not intended to be an exhaustive listing of all requirements but is intended to establish the express conditions which must be met for continued operation of the Western Waste Oil facility in the City of Grand Junction.

The 1988 edition of the Uniform Fire Code, as amended and adopted in the City of Grand Junction, at Division IV, Article 79 requires:

Plans to be submitted indicating the methods of storage, the quantity of storage, distances from buildings and property lines, access ways and fire protection facilities and provisions for drainage and runoff. Storage shall be in accordance with approved plans. Sec. 79.402.

Location of storage facilities on the property shall be in accordance with Sec. 79.403.

Fencing and maintenance shall be in accordance with Sec. 79.406.

Ignition sources (smoking and open flames) shall be prohibited pursuant to Sec. 79.407.

Outside dispensing shall be in accordance with Sec. 79.408.

Empty container and tank storage shall be conducted pursuant to Sec. 79.409.

Fire protection shall be in accordance with Sec. 79.410 and other applicable provisions.

Supports, foundations and anchorage of tanks shall be pursuant to Sec. 79.505.

Drainage dikes and walls for above ground tanks shall be constructed and maintained pursuant to Sec. 79.507.

Additional requirements found at Division II, Article 2 are:

Inspection of premises and sampling of combustibility, volatility and chemical analysis of product or constituents and enforcement of the various requirements of the Code shall occur pursuant to Sec. 2.107.

Requirements of the Resource Conservation and Recovery Act (RCRA) expressly include but are not limited to the provisions of:

40 CFR 261 and
sub-parts C, D and E of 40 CFR 266.

I have included for your reference photocopies of the above cited Uniform Fire Code sections. If questions relative to the technical requirements of the Uniform Fire Code arise, Mr. Reekie should be contacted.

I have included a signature block for the Coons to countersign this letter. Please see that they do so and that they are provided with a copy. If Western Waste Oil is organized as a corporation or partnership or other form of business entity, please also have the Coons sign in their respective capacities as agents or representatives of the business.

If I may be of further assistance or additional information is required please call.

OFFICE OF THE CITY ATTORNEY
DAN E. WILSON, CITY ATTORNEY

by: _____
John P. Shaver
Assistant City Attorney
250 N. 5th Street
Grand Junction, CO 81501
(303) 244-1506

ACCEPTED AND APPROVED AS TO FORM AND CONTENT

Steve Coon 6/26/91
Steve Coon date

Karen Coon 6/26/91
Karen Coon date

| | | |
|---|---|---|
| Western Waste Oil | capacity | date |
| Western Waste Oil | capacity | date |

shall be stored as if filled. Tanks and containers when emptied shall have the covers or plugs immediately replaced in openings.

### Fire Protection

**Sec. 79.410.** Fire protection for outside storage of flammable and combustible liquids shall be in accordance with Article 10.

## Division V

## STATIONARY TANK STORAGE, ABOVEGROUND, OUTSIDE OF BUILDINGS

### Restricted Locations

**Sec. 79.501.** The storage of Class I and Class II liquids in aboveground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited.

### Design and Construction of Tanks

**Sec. 79.502.** Tanks shall be designed, fabricated and tested in accordance with Section 79.105.

**EXCEPTION:** Existing oil storage reservoirs with concrete lining and with a combustible roof covering and built prior to the adoption of this section may be continued for the storage of petroleum products with a flash point in excess of 150°F.

### Location with Respect to Property Lines, Public Ways and Important Buildings on the Same Property

**Sec. 79.503.** (a) **Tanks for Pressures Not More Than 2.5 psig.** Every aboveground tank for storage of Class I, II or III-A liquids and those liquids with boilover characteristics and unstable liquids operating at pressures not in excess of 2.5 psig and designed with a weak roof-to-shell seam or equipped with emergency venting devices which will not permit pressures to exceed 2.5 psig shall be located in accordance with Table No. 79.503-A.

**EXCEPTION:** Vertical tanks having a weak roof-to-shell seam and storing Class III-A liquids may be located at one half the distances specified in Table No. 79.503-A, provided the tanks are not within a diked area or drainage path for a tank storing a Class I or Class II liquid.

(b) **Floating Roof Tank Defined.** For the purpose of this division, a floating roof tank is defined as one which incorporates either:

1. A pontoon or double-deck metal floating roof in an open-top tank, or
2. A fixed metal roof with ventilation at the top and roof eaves and containing a metal floating roof or cover meeting any of the following requirements:
   A. A pontoon or double-deck metal floating roof.
   B. A metal floating cover supported by liquid-tight metal pontoons or floats which provide sufficient buoyancy to prevent sinking of cover when half of the pontoons or floats are punctured.

An internal metal floating pan, roof or cover which does not meet the requirements of Item No. 2 above or one which uses plastic foam (except for seals) for flotation, even if capsulated in metal or fiberglass, shall be considered as being a fixed roof tank.





(c) **Tanks for Pressures Exceeding 2.5 psig.** Aboveground tanks for the storage of Class I, II or III-A liquids except those liquids with boilover characteristics and unstable liquids operating at pressures exceeding 2.5 psig or equipped with emergency venting which will permit pressures to exceed 2.5 psig shall be located in accordance with Table No. 79.503-B.

(d) **Tanks for Boilover Liquids.** Aboveground tanks for storage of liquids with boilover characteristics shall be located in accordance with Table No. 79.503-C.

Liquids with boilover characteristics shall not be stored in fixed roof tanks larger than 150 feet in diameter unless an approved inerting system is provided on the tank.

(e) **Tanks for Unstable Liquids.** Every aboveground tank for the storage of unstable liquids shall be located in accordance with Table No. 79.503-D.

(f) **Tanks for Class III-B Liquids.** Every aboveground tank for the storage of Class III-B liquids, excluding unstable liquids, shall be located in accordance with Table No. 79.503-E, except when located within a diked area or drainage path for a tank or tanks storing a Class I or Class II liquid. When a Class III-B liquid storage tank is within the diked area or drainage path for a Class I or Class II liquid, Subsection 79.502 or the exception to Section 79.503 (a) shall apply.

(g) **Use of Open Space on Adjacent Property.** Where two tank properties of diverse ownership have a common boundary, the chief may, with the written consent of the owners of the two properties, substitute the distances required in Subsections 79.503 (a) through (f) for the minimum distances specified in this section.

(h) **Direction of Horizontal Pressure Tanks.** Where end failure of horizontal pressure tanks and vessels can expose property, the tank shall be placed with the longitudinal axis parallel to the nearest important exposure.

TABLE NO. 79.403—OUTDOOR LIQUID STORAGE IN CONTAINERS AND PORTABLE TANKS

| CLASS | CONTAINER STORAGE—MAX. PER PILE | | PORTABLE TANK STORAGE MAX. PER PILE GALLONS[1] | | DISTANCE BETWEEN PILES OR RACKS (Ft.) | DISTANCE TO PROPERTY LINE THAT CAN BE BUILT UPON [2,3] (Ft.) | DISTANCE TO STREET, ALLEY OR A PUBLIC WAY [3] (Ft.) |
|---|---|---|---|---|---|---|---|
| | Gallons[1,4] | Height (Ft.) | Gallons[1,4] | Height (Ft.) | | | |
| I-A | 1,100 | 10 | 2,200 | 7 | 5 | 50 | 10 |
| I-B | 2,200 | 12 | 4,400 | 14 | 5 | 50 | 10 |
| I-C | 4,400 | 12 | 8,800 | 14 | 5 | 50 | 10 |
| II | 8,800 | 12 | 17,600 | 14 | 5 | 25 | 5 |
| III | 22,000 | 18 | 44,000 | 14 | 5 | 10 | 5 |

[1]For mixed class storage, see Section 79.403.
[2]If protection by a public fire department or private fire brigade capable of providing cooling water streams is not available, the distance shall be doubled.
[3]When the total quantity stored does not exceed 50 percent of the maximum allowed per pile, the distances may be reduced 50 percent, but not less than 3 feet.
[4]For storage in racks, the quantity limits per pipe do not apply, but the rack arrangement shall be limited to a maximum of 50 feet in length and two rows or 9 feet in depth.



### Container and Tank Storage Near Buildings on the Same Property

**Sec. 79.404.** A maximum of 1100 gallons of liquids in closed containers and portable tanks may be stored adjacent to a building located on the same premises and under the same management, provided that:

1. The building does not exceed one story in height. Such building shall be of fire-resistive construction with noncombustible exterior surfaces or noncombustible construction and must be devoted principally to the storage of liquids, or
2. The exterior building wall adjacent to the storage area shall have a fire-resistance rating of not less than two hours, having no opening to above-grade areas within 10 feet horizontally of such storage and no openings to below-grade areas within 50 feet horizontally of such storage.

The quantity of liquids stored adjacent to a building protected in accordance with Item No. 2 above may exceed 1100 gallons, provided the maximum quantity per pile does not exceed 1100 gallons and each pile is separated by a 10-foot minimum clear space along the common wall.

Where the quantity stored exceeds the 1100 gallons permitted adjacent to the building given in Item No. 1 above, or the provisions of Item No. 2 cannot be met, a minimum distance in accordance with the column for distance to property line that can be built upon in Table No. 79.403 shall be maintained between buildings and nearest container or portable tank.

### Drainage

**Sec. 79.405.** The storage area shall be graded in a manner to divert possible spills away from buildings or other exposures or shall be surrounded by a curb at least 6 inches high. When curbs are used, provisions shall be made for draining of accumulations of groundwater or rainwater or spills of liquids. Drains shall terminate at a safe location and shall be accessible to operation under fire conditions.

### Fencing and Maintenance

**Sec. 79.406.** Storage area shall be protected against tampering or trespassers by fencing or other control measures. The area shall be kept free of weeds, debris and other combustible materials not necessary to the storage. A distance of not less than 15 feet shall be maintained between the liquid storage and combustible material.

### Ignition Sources

**Sec. 79.407.** Signs shall be posted in the storage areas prohibiting open flames and smoking.

### Outside Dispensing

**Sec. 79.408.** Outside dispensing shall be in approved locations. See Division VIII.

### Empty Containers and Tanks Storage

**Sec. 79.409.** The storage of empty tanks and containers previously used for the storage of flammable or combustible liquids, unless free from explosive vapors,

shall be provided with a liquid-tight cap which shall be closed when not shall be properly identified.

-loaded tanks, a metallic fill pipe shall be designed and installed to the generation of static electricity by terminating the pipe within 6 the bottom of the tank and it shall be installed to avoid excessive

**ings for manual gaging.** Openings for manual gaging, if independent ipe, shall be provided with a liquid-tight cover. Covers shall be kept n not in use. Each such opening shall be protected against liquid d possible vapor release by means of a spring-loaded check valve or ved device.

**ings for vapor recovery.** Tank openings provided for purposes of very shall be protected against possible vapor release by means of a ed check valve or dry-break connections, or other approved device, pening is pipe connected to a vapor-processing system. Openings combined fill and vapor recovery shall also be protected against unless connection of the liquid delivery line to the fill pipe simul- nnects the vapor-recovery line. All connections shall be vaportight.

**ary opening protection.** Each connection to a tank inside of build- which liquid can normally flow shall be provided with an internal or alve located as close as practical to the shell of the tank.

torage of Class I or Class II liquids inside buildings shall be provided

closed remotely activated valve, or

-closing heat-activated valve, or

vice on each liquid-transfer connection below the liquid connections used for emergency disposal, to provide for in the event of fire in the vicinity of the tank.

corporated in the valve required by Section 79.302 (c) 4 hall be located adjacent to the valve required in Section

**.** Tanks storing Classes I, II and III-A liquids inside with a device, or other means shall be provided, to uilding. Suitable devices include, but are not limited er on the fill line, a valve actuated by the weight of the ump which is incapable of producing overflow or a least one pipe size larger than the fill pipe discharg- outside source of liquid or to an approved location.

**ittings.** All connections, fittings or other appurtenances ance with Division VII, "Piping, Valves and Fittings."

on

Fire protection shall be provided in ac nce with Article 10.



# Division IV
# CONTAINER AND PORTABLE TANK STORAGE OUTSIDE BUILDINGS

## General

**Sec. 79.401.** The storage of flammable and combustible liquids in closed containers or portable tanks outside of buildings shall be in accordance with this division. For permits, see Section 4.101.

## Plans

**Sec. 79.402.** Plans shall be submitted with each application for a permit to store more than 5000 gallons of liquids in drums or tanks. The plans shall indicate the methods of storage, quantities to be stored, distances from buildings and property lines, access ways, fire-protection facilities and provisions for drainage and runoff. Storage shall be in accordance with approved plans.

## Location on Property

**Sec. 79.403.** Outdoor storage of liquids in containers and portable tanks shall be in accordance with Table No. 79.403. Storage of liquids may be near buildings located on the same property, provided such storage is in accordance with Section 79.404 and this section.

When two or more classes of materials are stored in a single pile, the maximum quantity permitted in the pile shall be the smallest of the two or more separate maximum quantities.

Containers or portable tanks in a pile shall be not more than 150 feet from a 20-foot-wide access way that will allow fire-control apparatus to approach the pile.

The storage area shall be protected against tampering or trespassers where necessary and shall be kept free of weeds, debris and other combustible materials not necessary to the storage.

Materials which will react with water or other liquids to produce a hazard shall not be stored in the same area with flammable and combustible liquids.

**TABLE NO. 79.504-A—MINIMUM SPACING (SHELL-TO-SHELL) OF TANKS CONTAINING STABLE LIQUIDS[1,2]**

| TANK DIAMETER (Feet) | FLOATING ROOF TANKS | FIXED ROOF TANKS | |
|---|---|---|---|
| | | Class I or II Liquids | Class III Liquids |
| Not over 150 | 1/6 sum of adjacent tank diameters but not less than 3 feet | 1/6 sum of adjacent tank diameters but not less than 3 feet | 1/6 sum of adjacent tank diameters but not less than 3 feet |
| More than 150 | | | |
| If remote impounding is in accordance with Sec. 79.507 (b) | 1/6 sum of adjacent tank diameters | 1/4 sum of adjacent tank diameters | 1/6 sum of adjacent tank diameters |
| If impounding is around tanks in accordance with Sec. 79.507 (c) | 1/4 sum of adjacent tank diameters | 1/3 sum of adjacent tank diameters | 1/4 sum of adjacent tank diameters |

[1]Crude petroleum tanks having individual capacities not exceeding 126,000 gallons (3,000 barrels), when located at production facilities in isolated locations, need not be separated by more than 3 feet.

[2]Tanks used only for storing Class III-B liquids may be spaced 3 feet apart unless within a diked area or drainage path for a tank storing a Class I or II liquid.

(b) **Unstable Liquids.** The spacing between such tanks containing unstable liquids shall be not less than one half the sum of their diameters.

(c) **Spacing Between Liquid and LPG Tanks.** The minimum horizontal separation between an LP-gas container and a Class I, II or III-A liquid storage tank shall be 20 feet except in the case of Class I, II or III-A liquid tanks operating at pressures exceeding 2.5 psig or equipped with emergency venting permitting pressures to exceed 2.5 psig, in which case the provisions of Section 79.504 (a) shall apply. Suitable means shall be taken to prevent the accumulation of Class I, II or III-A liquids under adjacent LP-gas containers such as by dikes, diversion curbs or grading. When flammable or combustible liquid storage tanks are within a diked area, the LP-gas containers shall be outside the diked area and at least 10 feet away from the center line of the wall of the diked area. The foregoing provisions shall not apply when LP-gas containers of 125 gallons or less capacity are installed adjacent to fuel-oil supply tanks of 660 gallons or less capacity. Horizontal separation is not required between aboveground LP-gas containers and underground flammable and combustible liquid tanks.

### Supports, Foundations and Anchorage

**Sec. 79.505.** (a) **Tanks at Grade.** Tanks shall rest on the ground or on foundations made of concrete, masonry, piling or steel. Tank foundations shall be designed to minimize the possibility of uneven settling of the tank and to minimize corrosion in any part of the tank resting on the foundation.





(b) **Tanks Above Grade.** Tanks shall be securely supported. Supports for tanks storing Class I, II or III-A liquids shall be of concrete, masonry or protected steel. Single wood timber supports (not cribbing) laid horizontally may be used for outside aboveground tanks if not more than 12 inches high at their lowest point.

(c) **Fire Protection of Steel Supports.** Steel supports or piling for tanks storing Class I, II or III-A liquids shall have a fire-resistance rating of not less than two hours, except that solid web steel saddles need not be protected if less than 12 inches high at their lowest point. At the discretion of the chief, water-spray protection in accordance with U.F.C. Standard No. 79-2, or U.B.C. Standard No. 38-1, or equivalent may be used.

(d) **Design of Supports.** The design of the supporting structure for tanks shall be in accordance with well-established engineering principles of mechanics and shall comply with the Building Code.

Tanks shall be so supported as to prevent the excessive concentration of loads on the supporting portion of the shell.

(e) **Locations Subject to Flooding.** Where a tank is located in an area that may be subjected to flooding, the applicable provisions of Appendix II-B apply.

(f) **Seismic Design.** In areas subject to earthquakes, the tank supports and connections shall be designed to resist damage as a result of such shocks in accordance with the Building Code.

### Stairs, Platforms and Walkways

**Sec. 79.506.** Stairs, platforms and walkways shall be of noncombustible construction and shall be designed and constructed in accordance with the Building Code.

### Drainage Dikes and Walls for Aboveground Tanks

**Sec. 79.507.** (a) **General.** The area surrounding a tank or group of tanks shall be provided with drainage or shall be diked to prevent accidental discharge of liquid from endangering adjacent tanks, adjoining property or reaching waterways. These provisions may be altered or waived when determined by the chief that such tank or group of tanks does not constitute a hazard to other tanks, waterways or adjoining property, after consideration of special features such as topographical conditions, nature of occupancy and proximity to buildings on the same or adjacent property, capacity and construction of proposed tanks and character of liquids to be stored and nature and quantity of private and public fire protection provided.

(b) **Drainage.** Where protection of adjacent tanks, adjoining property or waterways is by means of a natural or man-made drainage system, such system shall comply with the following:

Drainage shall be provided at a slope of not less than 1 percent away from the tank toward an impounding basin or an approved means of disposal having a capacity greater than that of the largest tank served. This termination area and the route of the drainage system shall be so located that a fire occurring in the drainage system will not seriously endanger tanks or adjoining property.

(c) **Diked Areas.** Where protection of adjacent tanks, adjoining property or waterways is accomplished by retaining the liquid around the tank by means of a diked area, such diked area shall comply with the following:

1. The volumetric capacity of the diked area shall be not less than the greatest amount of liquid that can be released from the largest tank within the diked area. The capacity of the diked area enclosing more than one tank shall be calculated by deducting the volume of the tanks other than the largest tank below the height of the dike.

2. Walls of the diked area shall be of earth, steel, concrete or solid masonry designed to be liquid tight and to withstand a full hydrostatic head. Earthen walls 3 feet or more in height shall have a flat section at the top not less than 2 feet wide. The slope shall be consistent with the angle of repose of the material of which the walls are constructed.

3. The walls of the diked area shall be restricted to an average height of 6 feet above the interior grade, except as provided in Item No. 4 below.

4. Dikes may be higher than an average of 6 feet above interior grade where provisions are made for normal and necessary emergency access to tanks, valves and other equipment and safe egress from the diked enclosure.

A. Where the average height of the dike containing Class I liquids is over 12 feet measured from interior grade or where the distance between any tank and the top inside edge of the dike wall is less than the height of the dike wall, provisions shall be made for normal operation of valves and for access to tank roofs without entering below the top of the dike. These provisions may be met through the use of remote operated valves, elevated walkways or similar arrangements.

B. Piping passing through dike walls shall be designed to prevent excessive stresses as a result of settlement or fire exposure.

C. The minimum distance between tanks and the toe of the interior dike walls shall be 5 feet.

5. Each diked area containing two or more tanks shall be subdivided, preferably by drainage channels leading to an impounding basin or by intermediate curbs or spill dikes in order to prevent spills from endangering adjacent tanks within the diked area as follows:

A. When storing normally stable liquids in vertical cone roof tanks constructed with weak roof-to-shell seam or approved floating roof tanks or when storing crude petroleum in producing areas in any type of tank, one subdivision for each tank in excess of 10,000 barrels and one subdivision for each group of tanks (no tank exceeding 10,000-barrel capacity) having an aggregate capacity not exceeding 15,000 barrels.

B. When storing normally stable, flammable or combustible liquids in tanks not covered in Item A, one subdivision for each tank in excess of 100,000 gallons (2,500 barrels) and one subdivision for each group of tanks (no tank exceeding 100,000-gallon capacity) having an aggregate capacity not exceeding 150,000 gallons (3,570 barrels).





C. When storing unstable liquids in any type of tank, one subdivision for each tank, except that tanks installed in accordance with the drainage requirements of U.F.C. Standard No. 79-2 for Water Spray Systems for Fire Protection shall require no additional subdivision.

**NOTE:** Since unstable liquids will react more rapidly when heated than when at ambient temperatures, subdivision by drainage channels is the preferred method.

D. The drainage channels or intermediate curbs shall be located between tanks so as to take full advantage of the available space with due regard for the individual tank capacities. Intermediate curbs, where used, shall be not less than 18 inches in height.

(d) **Removing Water from Diked Area.** Provision shall be made for draining or removing excess water from a drainage sytem or diked area. Such drains shall not discharge to adjoining property, natural water courses, public sewers or public drainage channels unless the drain is so designed as to prevent the release of flammable or combustible liquids. A valve operable from outside the dike shall be provided in the dike system and shall normally be kept closed. Control of drainage shall be accessible under fire conditions.

(e) **Combustible Materials in Diked Areas.** The diked area shall be kept free of combustible material, empty or full drums or barrels.

### Tank Valves

**Sec. 79.508.** Each connection to an aboveground tank located below normal liquid level shall be provided with an internal or external control valve located as close as practicable to the shell of the tank. Except for liquids whose chemical characteristics are incompatible with steel, such valves, when external, and their connections to the tank shall be of steel.

### Tank Connections

**Sec. 79.509.** (a) **Normal Venting.** 1. **General.** Atmospheric storage tanks shall be adequately vented to prevent the development of vacuum or pressure sufficient to distort the roof of a cone roof tank or exceeding the design pressure in the case of other atmospheric tanks as a result of filling or emptying and atmospheric temperature changes.

Normal vents shall be sized in accordance with nationally recognized engineering standards or shall be at least as large as the filling or withdrawal connection, whichever is larger, but in no case less than 1 1/4-inch nominal inside diameter. See Section 2.303 (b).

Low-pressure tanks and pressure vessels shall be adequately vented to prevent development of pressure or vacuum, as a result of filling or emptying and atmospheric temperature changes, from exceeding the design pressure of the tank or vessel. Protection shall also be provided to prevent overpressure from any pump discharging into the tank or vessel when the pump discharge pressure can exceed the design pressure of the tank or vessel.

If any tank or pressure vessel has more than one fill or withdrawal connection and simultaneous filling or withdrawal can be made, the vent size shall be based on the maximum anticipated simultaneous flow.

# ARTICLE 2
# ORGANIZATION, AUTHORITY, DUTIES AND PROCEDURES
## Division I
## ORGANIZATION AND AUTHORITY

### Responsibility for Enforcement

**Sec. 2.101.** The chief shall be responsible for the administration and enforcement of this code. Under his direction, the fire department shall enforce all ordinances of the jurisdiction pertaining to:

1. The prevention of fires.
2. The suppression or extinguishing of dangerous or hazardous fires.
3. The storage, use and handling of explosive, flammable, combustible, toxic, corrosive and other hazardous gaseous, solid and liquid materials.
4. The installation and maintenance of automatic, manual and other private fire alarm systems and fire-extinguishing equipment.
5. The maintenance and regulation of fire escapes.
6. The maintenance of fire protection and the elimination of fire hazards on land and in buildings, structures and other property, including those under construction.
7. The maintenance of exits.
8. The investigation of the cause, origin and circumstances of fire.

### Rules and Regulations

**Sec. 2.102.** The chief, with the approval of the administrator, is authorized to make and enforce such rules and regulations for the prevention and control of fires and fire hazards as may be necessary from time to time to carry out the intent of this code. A minimum of one certified copy or the number required by governing law of such rules and regulations shall be filed with the clerk of the jurisdiction and shall be in effect immediately thereafter and additional copies shall be kept in the office of the fire department for distribution to the public.

### Fire Prevention Bureau

**Sec. 2.103.** A fire prevention bureau is established within the fire department under the direction of the fire chief, which shall consist of such fire department personnel as may be assigned thereto by the fire chief. The function of this bureau shall be to assist the fire chief in the administration and enforcement of the fire prevention provisions of this code.

### Fire Prevention Engineer or Fire Marshal

**Sec. 2.104.** The chief may designate a member of the fire department to exercise the powers and perform the duties of fire prevention engineer as set forth in this code. He may also be known as fire marshal.





### Authority of Fire Personnel to Exercise Powers of Police Officers

**Sec. 2.105.** The chief and members of the fire prevention bureau shall have the powers of a police officer in performing their duties under this code.

### Authority of Police Personnel to Assist in Enforcing This Code

**Sec. 2.106.** Whenever requested to do so by the chief, or his authorized representative, the chief of police shall assign such available police officers as in his discretion may be necessary to assist the fire department in enforcing the provisions of this code.

### Right of Entry

**Sec. 2.107.** Whenever necessary to make an inspection to enforce any of the provisions of this code, or whenever the chief or his authorized representative has reasonable cause to believe that there exists in any building or upon any premises any condition which makes such building or premises unsafe, the chief or his authorized representative may enter such building or premises at all reasonable times to inspect the same or to perform any duty imposed upon the chief by this code, provided that if such building or premises be occupied, he shall first present proper credentials and demand entry; and if such building or premises be unoccupied, he shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and demand entry. If such entry is refused, the chief or his authorized representative shall have recourse to every remedy provided by law to secure entry.

"Authorized representative" shall include the officers named in Sections 2.104, 2.105 and 2.106 of this code.

If the owner or occupant denies entry, the chief or his authorized representative shall obtain a proper inspection warrant or other remedy provided by law to secure entry. No owner or occupant or any other persons having charge, care or control of any building or premises shall fail or neglect, after proper request is made as herein provided, to promptly permit entry therein by the chief or his authorized representative for the purpose of inspection and examination pursuant to this code.

### Liability for Damages

**Sec. 2.108.** This code shall not be construed to hold the public entity or any officer or employee responsible for any damage to persons or property by reason of the inspection or reinspection authorized herein provided or by reason of the approval or disapproval of any equipment or process authorized herein, or for any action in connection with the control or extinguishment of any fire or in connection with any other official duties.

### Validity

**Sec. 2.109.** If any provision of this code or the application thereof to any person or circumstance is held invalid, the remainder of the code and the application of such provision to other persons or circumstances shall not be affected thereby.