



Department Of Fire Prevention & Electrical Safety

MATTHEW H. MEAD GOVERNOR

J. MICHAEL REED STATE FIRE MARSHAL

PLAN REVIEW INFORMATION TO INSTALL FLAMMABLE/ COMBUSTIBLE LIQUID ABOVE GROUND TANKS WS 35.9.108(a)

Flammable /Combustible liquids -To install tanks for the storage, dispensing, and use of flammable\combustible liquids above ground as specified in the International Fire Code sections 105.6.16 No.6,No.10,105.1.2 No. 2,105.7.8 No. 2 and NFPA 30 and NFPA 407. No plan review required for tanks under 501 gallon capacity.

Note: Flammable liquids have a flash point below 100 F. Combustible liquids have a flash point above 100 F.

FLAMMABLE LIQUIDS (Quantity) COMBUSTIBLE LIQUIDS (Quantity)

(Check one) Retail (attended) Non - Retail (cardlock) Bulk Plant Farm or Construction Site Commercial, Industrial, Governmental or Manufacturing (fuel vehicles with your business)

Located on Premises Known as: Phone Site Address and/or GPS Coordinates: Latitude: Longitude: IF ADDRESS AND/OR GPS COORDINATES ARE NOT SUBMITTED THIS APPLICATION WILL BE RETURNED MARKED "NOT APPROVED - INSUFFICIENT INFORMATION" Valuation of tank, piping and equipment

** ALL APPROVALS, IF REQUIRED LOCALLY, MUST BE SIGNED OFF BELOW. ** APPROVALS

SIGNATURE OF ZONING OFFICIAL

MAILING ADDRESS

CITY/COUNTY STATE ZIP

SIGNATURE OF LOCAL FIRE CHIEF

MAILING ADDRESS

CITY STATE ZIP

APPLICANT INFORMATION

INSTALLER TEL. PH.

ADDRESS

CITY STATE ZIP

APPLICANT/OWNER TEL PH

ADDRESS

CITY STATE ZIP

SIGNATURE OF APPLICANT DATE

NOTE: IT IS THE RESPONSIBILITY OF THE APPLICANT TO ENSURE THAT THIS INSTALLATION SHALL BE IN FULL COMPLIANCE WITH APPLICABLE STATUTES OF THE STATE OF WYOMING AND ANY LOCAL CODES AND ORDINANCES.

FOUR SETS OF PLANS SHALL ACCOMPANY THIS APPLICATION WHICH SHALL INCLUDE A PLOT PLAN SHOWING THE LOCATION OF BUILDINGS, STRUCTURES, TANKS, DIKING, VALVES, PIPING, TANK AND DIKE CAPACITIES, DETAILS OF DESIGN AND CONSTRUCTION, AND FIRE PROTECTION. PLANS SHALL INDICATE THE METHOD OF STORAGE, QUANTITIES, DISTANCES FROM BUILDINGS AND PROPERTY LINES, ACCESS WAYS, AND PROVISIONS FOR SPILL CONTROL, DRAINAGE, AND SECONDARY CONTAINMENT.

ABOVE GROUND TANK CHECKLIST - 2012 IFC –

Check your project against the provisions that apply to your use to meet current International Fire Code requirements.

NOTE: DEQ regulates underground tank installations

GENERAL TANK PROVISIONS:

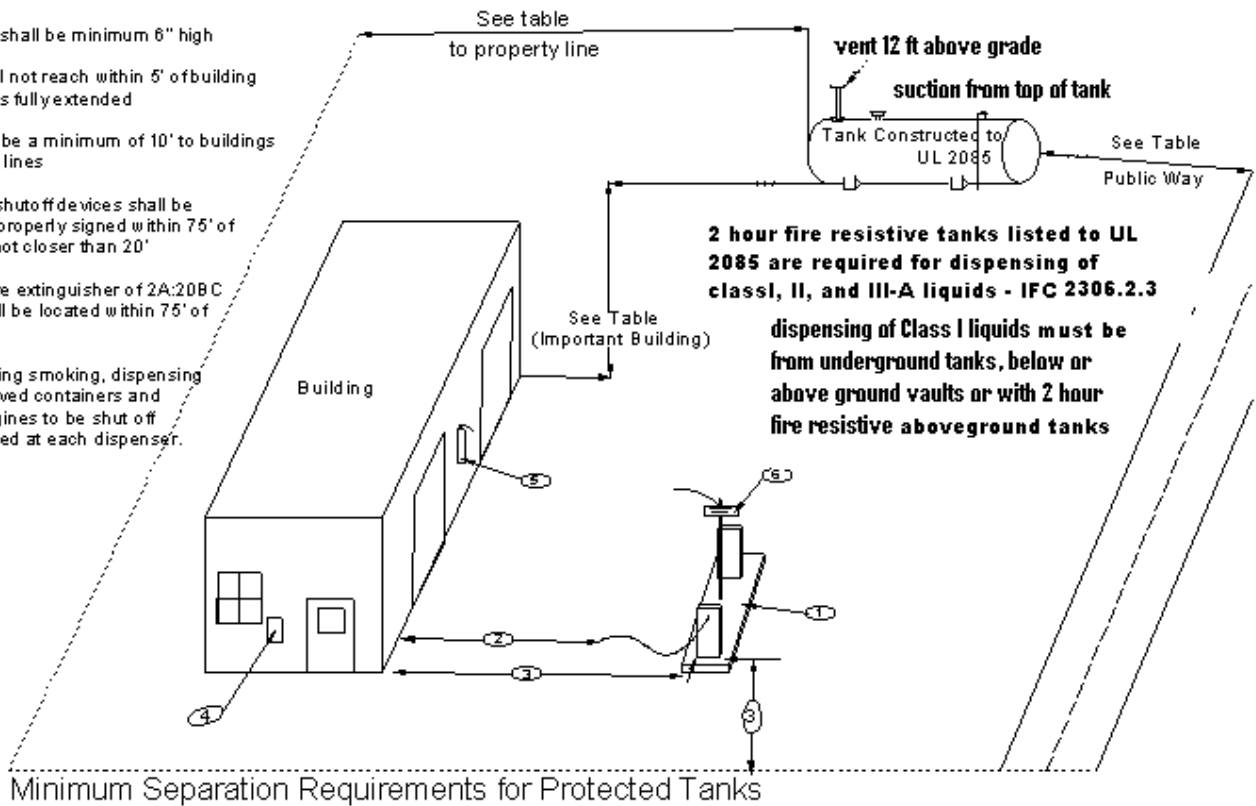
1. **DESIGN STANDARDS:** The design, fabrication and construction of tanks and equipment shall be in accordance with National Fire Protection Association Standard 30 and with recognized good engineering practices and nationally recognized standards. **(FLAMMABLE LIQUIDS per IFC 5703.6.2 and 5704.2.7).** The recognized standard for the State of Wyoming is UL 142 for steel tanks and UL 2085 for 2-hour rated tanks. Also, UL 2244 for tanks with pumps attached. Vaults and special enclosures will be compliant with the IFC. Tanks shall bear an all weather label with the following information: name and address of the tank manufacturer, year the tank was built or date of re-certification, capacity of the tank in US gallons, and the tank construction standard. Also, see NFPA 407 and IFC Chapter 20 for tanks at airports. **Note: All Class I, II and IIIA tanks to be used for dispensing to vehicles must be UL 2085 Listed tanks. IFC 2306.2.3**
2. **LOCATION:** Storage tanks are required to be located a minimum distance from property lines which may be built upon and a minimum distance from the near side of any public way or nearest important building per IFC sec. 5704.2.9.6 and NFPA 30, Chapter 22. UL 2085 Listed tanks shall be located per Table 2306.2.3.
3. **SEPARATION TO LPG TANKS:** The minimum horizontal separation between an LPG container and a Class I, II and III-A liquid storage tank shall be 20 feet, with some exceptions. Suitable means shall be provided to prevent the accumulation of Class I, II, and III-A liquids under adjacent LPG containers such as diking, diversion curbs, or grading. See IFC 5704.2.9.6.3.
4. **NORMAL VENTING:** To prevent the development of vacuum or pressure within storage tanks vents shall be sized in accordance with IFC 5704.2.7.3 and shall be at least the size of the fill or withdrawal connection but not less than 1 and 1/4 inches inside diameter. Flammable liquid vents must terminate not less than 12 feet above grade and 5 feet from a building opening or property line. They must discharge upwards and outward.
5. **EMERGENCY VENTING:** Each aboveground tank shall be equipped with adequate additional emergency venting that will relieve excessive internal pressure caused by fire exposure. IFC 5704.2.7.4.
6. **DIKING:** The area surrounding a tank or tanks shall be provided with drainage control or shall be diked per IFC 5704.2.9.7.4 to prevent accidental discharge of liquid from endangering adjacent tanks or adjoining property or from reaching waterways. Listed secondary containment tanks do not require diking or drainage control. IFC 5704.2.10, Exception 2.
7. **PIPING:** All piping is required to be designed and fabricated from suitable materials having adequate strength and durability to withstand the pressures, structural stresses, and exposures to which they can be subjected. See IFC 5703.6. All underground piping shall be properly designed, installed, and maintained, and protected from corrosion by cathodic protection or construction of corrosion resistant materials. IFC 5703.6.5.
8. **ELECTRICAL:** Electrical wiring and equipment shall be installed and maintained in accordance with the National Electrical Code (NFPA 70) and as otherwise required by the Code Official. IFC 5703.1.3.
9. **FIRE VALVES:** Fire valves, both manual and automatic, shall be required per IFC 5703.6.6.

10. **EXTINGUISHERS:** Extinguishers shall be provided on site per IFC 5703.2.1 and section 906 with a minimum rating of 2A-20B:C located not more than 75 ft. from the pumps. Other additional fire protection may be required per IFC 5704.2.9.2.
11. **SIGNS/PLACARDING:** Signs, placarding of product and no smoking signs shall be properly posted per IFC 5704.2.3 and 5703.5.
12. **STAIRS:** All stairs and platforms shall be built of non-combustible materials and per the International Building Code. IFC 5704.2.9.4
13. **IMPACT PROTECTION:** Vehicle impact protection for tanks and piping and pumps shall be provided per IFC 5704.2.9.7.5. Vehicle impact-resistant tanks are not required to be protected by guard posts. When required, guard posts shall be constructed of steel no less than 4 inches in diameter and concrete filled, spaced not more than four feet apart, and set not less than three feet above ground in a concrete filled footing 15 inches minimum in diameter and a minimum of three foot deep. Posts shall not be located less than 3 ft. from the tanks.
14. **OVERFILL PROTECTION:** Overfill protection shall be provided for tanks per IFC 5704.2.7.5.8 and 5704.2.9.7.6 (Protected tanks). Fill protection shall be provided per IFC 2306.6.2.6 at each fill connection.

Additional Provisions for motor vehicle fuel dispensing stations

15. **OPENINGS:** Tank openings shall be through the top only per IFC 2306.6.2.1 and anti-siphon devices shall be provided per 2306.6.2.4 on piping when piping extends below the top of the tank.
16. **ABOVE GRADE TANKS** when dispensing Class I liquids shall be 2-hour fire protected tanks listed per UL 2085 and labeled for above ground service and shall be in accordance with Chapters 23 and 57 of the IFC and NFPA 30. Above grade tanks used for storage of Class I, II, and III-A liquids shall not exceed 15,000 gallons Water Capacity for an individual tank nor 48,000 gallons in aggregate for multiple tanks. Installations with the aggregate capacity shall be separated from other installations by not less than 100 ft. Tanks in approved vaults storing Class I and II liquids at an individual site shall be limited to 15,000 gallons in individual tanks, 48,000 gallons aggregate. Tanks storing Class II and III-A liquids at a fleet vehicle service station shall be limited to a maximum single tanks capacity of 20,000 gallons and an aggregate of 80,000 gallons per IFC 2306.2.4.2. Interstitial spaces shall be monitored per NFPA 30.
17. **LISTED EQUIPMENT:** All equipment associated with dispensing of flammable/combustible liquids shall be listed equipment per IFC 2306.7.1. Dispensers/pumps shall be mounted on a concrete island a minimum of 6 inches high or shall be located on an approved protected tank. Emergency impact valves shall be provided. See IFC 2306.7.3 and 2306.7.4. Leak detection shall be provided for remote pumps to dispensers per IFC 2306.7.7.1.
18. **DISPENSER/PUMPS** shall be located not less than 10 ft. from property lines and buildings. All portions of the vehicle being fueled shall be on the premises of the fuel station. The nozzle shall not be within 5 ft. of building openings when fully extended per IFC 2303.1, No. 4. Hoses for pumps shall be listed and approved and not over 18 ft. in length unless approved by the Authority having jurisdiction. Hoses shall be provided with break-away connections. Nozzles shall be per IFC 2306.7.6.
19. **SIGNS:** Smoking and open flames shall be prohibited where fuel is being dispensed, engines shall be shut off and glass or other unapproved containers shall not be used. Signage prohibiting such will be conspicuously posted at dispensers per IFC 2305.6
20. **EMERGENCY DISCONNECTS:** Per IFC 2303.2 emergency disconnect switches shall be provided at approved locations to stop the transfer of fuel to the fuel dispensers in the event of a spill or other emergency. These shall be within 100 ft. of dispensers but not less than 20 ft. and labeled: EMERGENCY FUEL SHUT OFF.

1. Pump island shall be minimum 6" high
2. Nozzles shall not reach within 5' of building when hose is fully extended
3. Pumps shall be a minimum of 10' to buildings and property lines
4. Emergency shutoff devices shall be located and properly signed within 75' of pumps but not closer than 20'
5. A portable fire extinguisher of 2A:20BC capacity shall be located within 75' of any pumps.
6. Sign prohibiting smoking, dispensing into unapproved containers and requiring engines to be shut off shall be posted at each dispenser.

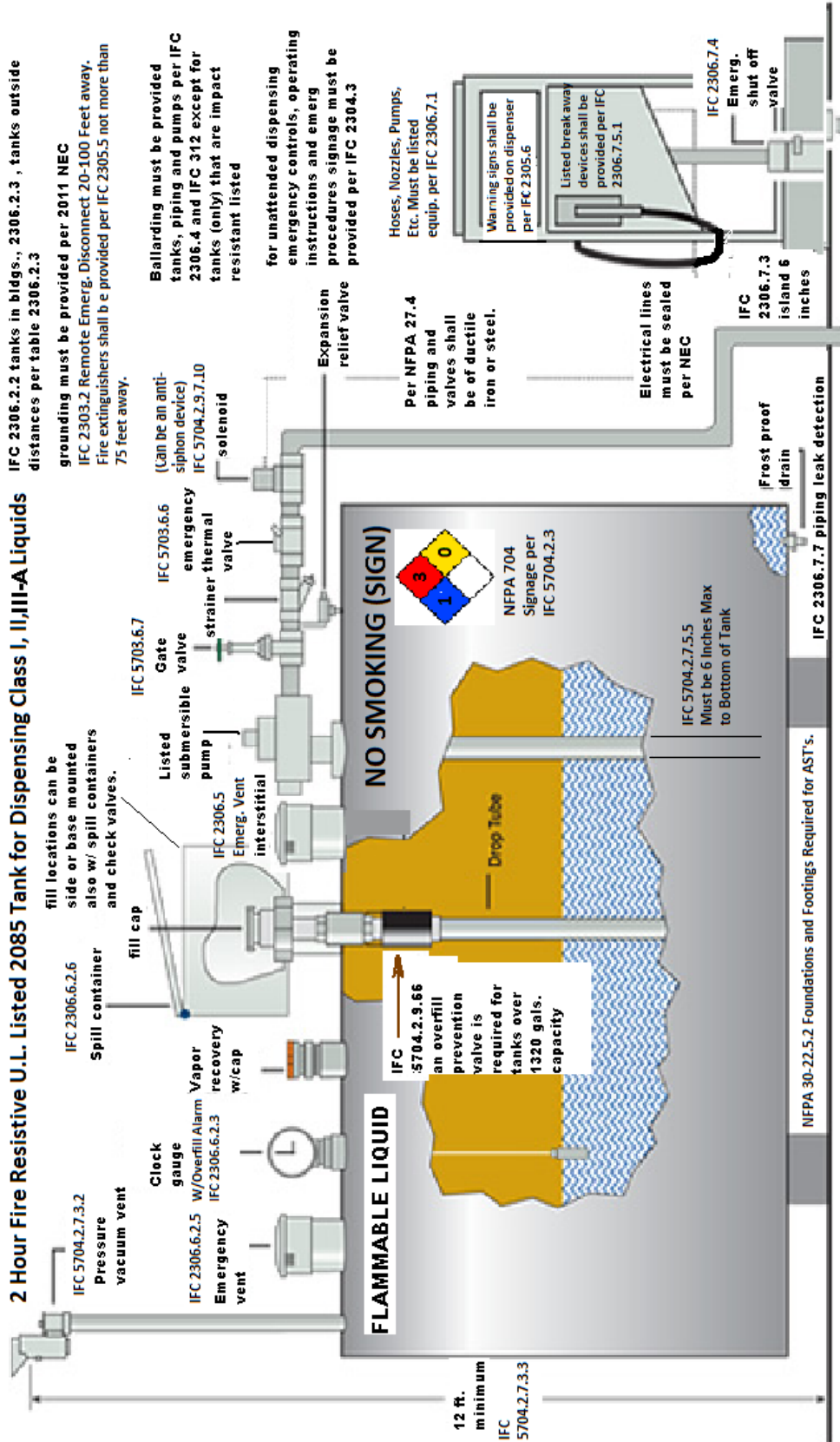


Class of liquid and tank type	Individual tank capacity (gallons)	Minimum distance to nearest important bldg. On same property (feet)	Minimum distance to nearest fuel dispenser (feet)	Minimum distance from lot line which is or can be built on, including the opposite side of a public way. (feet)	Minimum distance from the nearest side of a public way (feet)	Minimum distance between tanks (feet)
Class I protected tanks above ground or tanks in vaults	Less than or equal to 6,000	5	25 (a)	15	5	3
	Greater than 6,000	15	25 (a)	25	15	3
Class II and III protected above ground tanks	Same as Class I	Same as Class I	Same as Class I (c)	Same as Class I	Same as Class I	Same as Class I
Tanks in vaults	0-20,000	0 (b)	0	0 (b)	0	Separate compartment required for each tank
Other tanks	All	50	50	100	50	3

(a): At fleet vehicle service stations, no minimum separation distance is required.

(b): Underground vaults shall be located such that they will not be subject to loading from nearby structures, or they shall be designed to accommodate applied loads from existing or future structures that can be built nearby.

(c): For Class IIIB liquids in protected above-ground tanks, no minimum separation distance is required.



PROJECT VALUATION AND PLAN REVIEW FEES

The construction costs for your project shall be based upon the following definition:

VALUATION: of a project shall be estimated cost to replace the project or structure in kind, based on current replacement costs.

TOTAL VALUATION	FEE
\$1.00 to \$500.00	\$16.03
\$501.00 to \$2,000.00	\$16.03 for the first \$500.00 plus \$2.08 for each additional \$100.00, or fraction thereof, and including \$2,000.00
\$2001.00 to \$25,000.00	\$47.22 for the first \$2,000.00 plus \$9.55 for each additional \$1,000.00, or fraction thereof, to and including \$25,000.00
\$25,001.00 to \$50,000.00	\$267.12 for the first \$25,000.00 plus \$6.90 for each additional \$1,000.00, or fraction thereof, to and including \$50,000.00
\$50,001.00 to \$100,000.00	\$438.95 for the first \$50,000.00 plus \$4.78 for each additional \$1,000.00, or fraction thereof, to and including \$100,000.00
\$100,001.00 to \$500,000.00	\$677.60 for the first \$100,000.00 plus \$3.82 for each additional \$1,000.00, or fraction thereof, to and including \$500,000.00
\$500,001.00 to \$1,000,000.00	\$2,204.94 for the first \$500,000.00 plus \$3.25 for each additional \$1,000.00, or fraction thereof, to and including \$1,000,000.00
\$1,000,001.00 and up	\$3,824.33 for the first \$1,000,000.00 plus \$2.49 for each additional \$1,000.00, or fraction thereof

Other Inspections and Fees:

1. Inspections outside of normal business hours.....\$49.31 per hour
(Minimum charge - two hours)
2. Reinspection fees assessed under provisions of Section 108.8 of the 1997 Uniform Building Code
.....\$49.31 per hour*
3. Inspections for which no fee is specifically indicated \$49.31 per hour*
(Minimum charge -- one-half hour)
4. Additional plan review required by changes, additions or revisions to
plans\$49.31 per hour*
(Minimum charge -- one-half hour)
5. Outside consultants for plan checking and inspections, or bothActual costs**

*Or the total hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

**Actual costs include administrative and overhead costs.

FOUR SETS OF PLANS shall accompany this application. The plans shall include a site plan, drawn to scale, showing the location of property lines, the proposed tank location, any buildings/structures, any existing tanks, vehicle access, power lines and other utilities, on-site fire protection (hydrants) and vehicle impact protection for the tanks.

The plans shall also indicate the type of tank (manufacturer's information sheets), location of dispensers, location and classification of electrical equipment, emergency fuel shutdown devices. The Plan Review Information Sheet (first page of this packet) shall be completed and returned with the plans along with the appropriate plan review fee.

SEND COMPLETED FORM, FEES, AND EQUIPMENT CUT SHEETS

SHOWING

UL LISTINGS AND PLANS TO:

**DEPARTMENT OF FIRE PREVENTION AND ELECTRICAL SAFETY
2500 ACADEMY COURT, RIVERTON, WY. 82501**