



TOWN OF BRIGHTON
Office of the Fire Marshal
 2300 Elmwood Avenue
 Rochester, New York 14618
 (585) 784-5220 Office
 (585) 784-5207 Fax

Underground Propane Tank Permit Application

In accordance with the Code of the Town of Brighton and the New York State Fire Prevention and Building Code, an operational permit is required to install and or maintain an underground liquid propane storage tank.

Make Checks Payable – Town of Brighton

Underground Liquid Propane Tank Permit - \$75.00 / tank

Applicant & Property Information	Business Name					
	Address		Suite	City	State	Zip Code
	Telephone		Work Telephone		Email Address	
	Property Owner or Mailing Address if different from above					
	Name or DBA					
	Address		Suite	City	State	Zip Code
	Telephone		Work Telephone			
Primary Contact	Name					
	Address			City	State	Zip Code
	Telephone		Mobile Telephone		Work Telephone	
Secondary Contact	Name					
	Address			City	State	Zip Code
	Telephone		Mobile Telephone		Work Telephone	

The undersigned represents that this application for a permit as described herein will be in accordance with all ordinances of the Town of Brighton and the Fire and Building Code of New York State and that any plans or specifications submitted with this application are the plans or specifications relating to this permit and no other.

Applicant Signature	Applicant Name (Print)	Application Date
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Please refer to Underground Liquid Propane Installation Plan Review and Permit Submittal Requirements

Permit Number	Issue Date	New Expiration Date	Fee Paid	Check #	Receipt Number	Evacuation Plan Received



OFFICE OF THE FIRE MARSHAL

TOWN OF BRIGHTON

2300 ELMWOOD AVENUE – ROCHESTER, NEW YORK 14618

(585) 784-5220 OFFICE (585) 784-5207 FAX

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Underground LPG Tanks

General Requirements

All underground LP-Gas systems shall be designed and installed in accordance with the Fire Code of New York State 2010 Edition, Fuel Gas Code of New York State: 2010 Edition, Provisions of NFPA 58: Standard for Storage and Handling of Liquefied Petroleum Gases, NFPA 54: National Fuel Gas Code

Provide a site plan detailing the distances as prescribed in the Fire Code of New York State Table 3804.

Tank Capacities, and Type (NFPA 4.3.1) (FCNYS 3804.2)

The maximum aggregate capacity of any one installation will not exceed a water capacity of 5,000 gallons unless approved by Town of Brighton Fire Marshal. Tanks must be approved for underground installation.

Sand Base (NFPA 6.6.6.1 (k))

Although concrete foundations are required, sand should still be used in the bottom of the hole for drainage. It is a good practice to put a 6 to 12-inch layer of coarse sand in the bottom of the hole before setting the tank.

Water Tables (NFPA 6.6.1.6)

Underground LPG tanks are not allowed in areas of the Town of Brighton where high water tables exist or in federal flood zones, unless approved by the Fire Marshal. Provisions must be made to adequately secure the tank to the ground, or by a concrete slab to prevent flotation. Remember that a properly filled propane tank can float because the density of propane is about half that of water. Where straps come in contact with the tank, protection between the tank and the straps is to be provided. Thick tar-paper, celetex, etc. that is water resistant will suffice.

Corrosion Protection Equipment (NFPA 6.14)

In order to reduce the problem of corrosion of underground LPG tanks, sacrificial anodes are to be installed in the ground near the tank. The anodes are connected by a copper cable to the tank. Anodes are usually a soft metal, such as magnesium or zinc. They are made as solid rods or stakes, as well as soft powder in small bags. These must be installed as per tank manufactures specifications.

Tank Coating (NFPA 6.6.6.1 & 6.6.6.2 (2))

Underground tanks must be designed and coated for underground installation. They are usually factory coated. However, coatings may have been scratched off during transportation and installation. As a result, the tank must be touched up with same type of paint or coating on site prior to being installed in the ground.

Tank Depth (NFPA 6.6.6.1a, b)

The top of the tank when set in the hole must be at least six (6) inches below grade. If the tank is to be installed in an area where vehicles may travel close to the tank, 18-inches of compacted earth will be set below grade.

All Underground Tanks Will Be Supported:

All tanks will be supported by a minimum 4 inch (min) thick concrete pad that covers all tank supports.

Backfill (NFPA 6.6.6.1 (K))

The hole is to be backfilled with coarse sand and will be free of rocks and abrasives. The tank surface is not to be scratched. A minimum of twelve (12) inches of backfill is to be tamped down around the tank, then an additional twelve inches is filled in and tamped, etc. until the hole is full.

Location of Containers See attached tables. (NFPA table 6.3.1) (FCNYS 3804)

The minimum separation between containers installed underground will be three (3) feet. No part of an underground ASME container will be less than 10 feet from a building or line of adjoining property that can be built upon.

Vehicular Traffic (NFPA 6.6.6.1 d)

Where containers are installed underground and within 10 feet of where vehicular traffic can be expected, protection against vehicular damage will be provided for the fitting housing cover, tank connections and piping.

LPG Testing of Piping System:

All residential piping for LPG installations will be tested a minimum of 10 minutes and tested with an approved gas detector, a non-corrosive leak detection fluid or other approved leak detection methods.

Burying Lines (NFPA 6.8.12) (NFPA 6.8.13)

Buried metallic pipe and tubing shall be installed underground with a minimum 12 in. of cover.

The minimum cover shall be increased to 18 in. if external damage to the pipe or tubing from external forces is likely to result. If a minimum 12 in. of cover cannot be maintained, the piping shall be installed in conduit or shall be bridged (shielded).

Where underground piping is beneath driveways, roads, or streets, possible damage by vehicles shall be taken into account.

Tracer Wire:

An electrically continuous corrosion-resistant tracer wire (minimum AWG 14) or tape shall be buried with the polyamide or polyethylene pipe to facilitate locating the pipe.

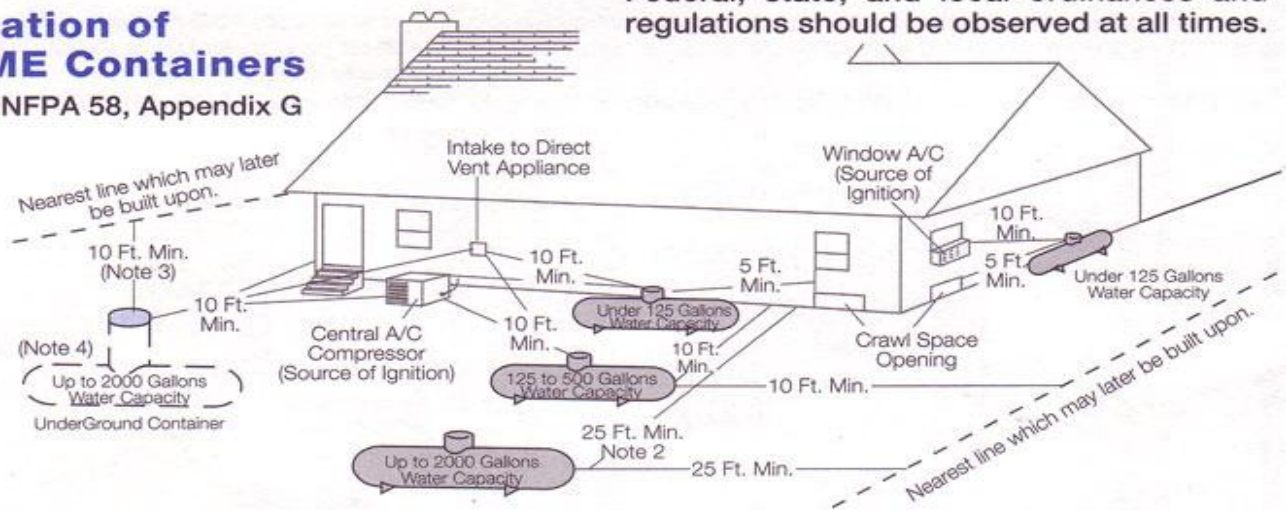
(A) One end of the tracer wire shall be brought aboveground at a building wall or riser.

(B) The tracer wire or tape shall not be in direct contact with the polyamide or polyethylene pipe.

Location of ASME Containers

From NFPA 58, Appendix G

Federal, state, and local ordinances and regulations should be observed at all times.



Notes:

1. Regardless of its size, any ASME tank filled on-site must be located so that the filling connection and fixed liquid level gauge are at least 10 feet from external source of ignition (i.e. open flame, window A/C, compressor, etc.), intake to direct vented gas appliance or intake to a mechanical ventilation system.
2. May be reduced to 10 feet minimum for a single container of 1200 gallons water capacity or less if it is located at least 25 feet from any other LP-Gas container of more than 125 gallons water capacity.
3. Minimum distances from underground containers shall be measured from the relief valve and filling or level gauge vent connection at the container, except that no part of an underground container shall be less than 10 feet from a building or line of adjoining property which may be built upon.
4. Where the container may be subject to abrasive action or physical damage due to vehicular traffic or other causes it must be either, a) placed not less than 2 feet below grade; b) otherwise protected against such physical damage.

LOCATION OF LP-GAS CONTAINERS
MINIMUM SEPARATION BETWEEN CONTAINERS AND BUILDINGS, PUBLIC WAYS OR LOT LINES OF
ADJOINING PROPERTY THAT CAN BE BUILT UPON MINIMUM SEPARATION

TABLE 3804.3
LOCATION OF LP-GAS CONTAINERS

CONTAINER CAPACITY (water gallons)	MINIMUM SEPARATION BETWEEN CONTAINERS AND BUILDINGS, PUBLIC WAYS OR LOT LINES OF ADJOINING PROPERTY THAT CAN BE BUILT UPON		MINIMUM SEPARATION BETWEEN CONTAINERS ^{a, c} (foot)
	Mounded or underground containers ^a (foot)	Above-ground containers ^b (foot)	
Less than 125 ^d	10	5 ^e	None
125 to 250	10	10	None
251 to 500	10	10	3
501 to 2,000	10	25 ^f	3
2,001 to 30,000	50	50	5
30,001 to 70,000	50	75	(0.25 of sum of diameters of adjacent containers)
70,001 to 90,000	50	100	
90,001 to 120,000	50	125	

a. Minimum distance for underground containers shall be measured from the pressure relief device and the filling or liquid-level gauge vent connection at the container, except that all parts of an underground container shall be 10 feet or more from a building or lot line of adjoining property which can be built upon.

b. For other than installations in which the overhanging structure is 50 feet or more above the relief-valve discharge outlet. In applying the distance between buildings and ASME containers with a water capacity of 125 gallons or more, a minimum of 50 percent of this horizontal distance shall also apply to all portions of the building which project more than 5 feet from the building wall and which are higher than the relief valve discharge outlet. This horizontal distance shall be measured from a point determined by projecting the outside edge of such overhanging structure vertically downward to grade or other level upon which the container is installed. Distances to the building wall shall not be less than those prescribed in this table.

c. When underground multicontainer installations are comprised of individual containers having a water capacity of 125 gallons or more, such containers shall be installed so as to provide access at their ends or sides to facilitate working with cranes or hoists.

d. At a consumer site, if the aggregate water capacity of a multicontainer installation, comprised of individual containers having a water capacity of less than 125 gallons, is 500 gallons or more, the minimum distance shall comply with the appropriate portion of Table F3804.3, applying the aggregate capacity rather than the capacity per container. If more than one such installation is made, each installation shall be separated from other installations by at least 25 feet. Minimum distances between containers need not be applied.

e. The following shall apply to above-ground containers installed alongside buildings:

1. Containers of less than a 125-gallon water capacity are allowed next to the building they serve when in compliance with Items 2, 3 and 4.
2. Department of Transportation (DOTn) specification containers shall be located and installed so that the discharge from the container pressure relief device is at least 3 feet horizontally from building openings below the level of such discharge and shall not be beneath buildings unless the space is well ventilated to the outside and is not enclosed for more than 50 percent of its perimeter. The discharge from container pressure relief devices shall be located not less than 5 feet from exterior sources of ignition, openings into direct-vent (sealed combustion system) appliances or mechanical ventilation air intakes.
3. ASME containers of less than a 125-gallon water capacity shall be located and installed such that the discharge from pressure relief devices shall not terminate in or beneath buildings and shall be located at least 5 feet horizontally from building openings below the level of such discharge and not less than 5 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances, or mechanical ventilation air intakes.
4. The filling connection and the vent from liquid-level gauges on either DOTn or ASME containers filled at the point of installation shall not be less than 10 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances or mechanical ventilation air intakes.

f. This distance is allowed to be reduced to not less than 10 feet for a single container of 1,200-gallon water capacity or less, provided such container is at least 25 feet from other LP-gas containers of more than 125-gallon water capacity.

All installations must concur with the approved plans. Any deviation from the approved plans requires a resubmittal to the Fire Marshal's Office.

All fire marshal inspection forms and permits shall be kept in a permit packet on the job site until final inspection.

Tank **MUST NOT** be covered prior to final inspection and/or approval of Fire Marshal.

Please read the information below and sign before submitting your application

Your application shall be deemed complete only if this checklist is completed and submitted along with the submittal package.

Submittals not accompanied by a checklist will not be accepted.

Accuracy of the submittal package, including this checklist, is the responsibility of the applicant. Failure to submit an accurate submittal package will be considered an incomplete application by the Plan Reviewer. An incomplete submittal will result in a **HOLD**.

If work is found to have commenced without approved plans and/or a proper permit, this office reserves the right to shut down any/all portions of the entire project deemed necessary to inspect, investigate and confirm that work has been done.

When work for which a permit is required has been conducted without a permit or approval, a stop work is immediately posted and all permit fees immediately double upon proper application for plan review and due upon issuance of a new installation permit.

If any portion of the work performed is not clearly visible or readily accessible, you will be ordered to demolish, disassemble or remove any and all obstructions regardless of the cost incurred. Failure to comply will result in the suspension/revocation of any building or other permits related to the site.

I VERIFY THAT I DESIGNED OR DIRECTLY SUPERVISED THE DESIGN OF THIS UNDERGROUND LIQUID PROPANE INSTALLATION SYSTEM SUBMITTAL AND I VERIFY THAT SUBMITTAL REQUIREMENTS ARE ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.

In addition, it is understood that the installation of fire protection systems shall be made only by persons properly trained and qualified to install the specific fire protection system being provided. The installer certifies to this authority that the installation is in complete agreement with the terms of the listing and manufacturer's instructions and/or approved design plan.

Print Name

Signature

Date