



HOUSTON FIRE DEPARTMENT LIFE SAFETY BUREAU (LSB)



LIFE SAFETY BUREAU (LSB) STANDARD 15, rev. 02 MOBILE REFUELING / WET HOISING

SUPERCEDES: LSB Standard 15, Effective 5/23/03

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Approved: _____
Richard W. Galvan, Assistant Fire Marshal

Approved: _____

LIFE SAFETY BUREAU (LSB) STANDARDS ARE ESTABLISHED IN ACCORDANCE WITH PROVISIONS OF THE CITY OF HOUSTON FIRE CODE. THEY ARE SUBJECT TO THE ADMINISTRATIVE SECTIONS COVERING – ALTERNATIVE MATERIALS AND METHODS, MODIFICATIONS, AND BOARD OF APPEALS.

Tyrone G. Freeman, Fire Marshal
TABLE OF CONTENTS

SECTION 15.1 --- GENERAL	3
15.1.1 Scope.....	3
15.1.2 Purpose.....	3
SECTION 15.2 --- DEFINITIONS	3
15.2.1 Fuel Limit Switch.....	3
15.2.2 Mobile Fueling.....	3
SECTION 15.3 --- GENERAL REQUIREMENTS.....	3
15.3.1 Permit required.	3
15.3.2 Approved Locations.	4
15.3.3 Permitted sites.	4
15.3.3.1 Site plan.....	4
15.3.3.2 Adjoining property owners.	4
15.3.3.3 Site Inspection.	4
15.3.3.4 Storm Water Run-Off Plan.....	4
15.3.3.5 Notification of Insurance carrier.	4
15.3.3.6 Annual inspection.	4
15.3.3.7 Fuel spill response plan.	4
15.3.3.8 Mobile refueling company proof of insurance.	5
15.3.3.9 Authorization to fuel on private property.	5
15.3.3.10 Operational manual contents.....	5
SECTION 15.4 ---OPERATIONAL REQUIREMENTS	5
15.4.1 Site.....	5
15.4.1.1 Containment.	5
15.4.1.2 Access to public.....	5
15.4.1.3 Distance to buildings, property lines, combustible storage.	5
15.4.1.4 Spills.	5
15.4.1.5 Ignition source precautions.....	5
15.4.1.6 Nighttime refueling operations.	5
15.4.1.7 Electrical wiring and devices.....	5
15.4.1.8 Spill Notifications.	5
15.4.1.9 Fire Department Access Roads.....	6
15.4.1.10 Tractor-trailer Rigs.....	6
15.4.2 Refueling Vehicles (Tank Vehicles).	6
15.4.2.1 Compliance with other agencies.....	6
15.4.2.2 Pumps.	6
15.4.2.3 No smoking signs.	6
15.4.2.4 Fire Extinguishers.....	6
15.4.2.5 Dispensing nozzles and hose.....	6
15.4.2.6 Length of hose.....	6
15.4.2.7 Protection of hoses.....	6
15.4.2.8 Hose reels.	6
15.4.2.9 Brakes- chocks-warning lights.....	7
15.4.2.10 Fuel limit switch.	7
15.4.3 Drivers.....	7
15.4.3.1 Constantly attended.....	7
15.4.3.2 Emergency communication device.....	7

15.4.3.3 Hose inspection and reports 7
15.4.3.4 Topping off of vehicles..... 7
15.4.3.5 Shut off engines..... 7
15.4.3.6 Remote Emergency Shut-off Device 7
15.4.3.7 License and Certification. 7
APPENDIX A 8
REFERENCES..... 9

**LSB STANDARD 15, REV. 02
MOBILE REFUELING / WET HOSING**

SECTION 15.1 --- GENERAL

15.1.1 Scope.

Mobile refueling, the transfer of fuel from one vehicle to another vehicle, creates a fire hazard and life safety concern. Precautions shall be taken to help alleviate the hazards in regards to the site location, exposed property, the equipment used, the vehicle used, as well as the operators-drivers conducting the refueling, in accordance with this standard and the *Fire Code*.

15.1.2 Purpose.

The purpose of this standard is to provide guidance and instruction for fire and life safety at a company's vehicle fleet site location. In addition, guidance and instructions for the independent mobile refueling operations, practices, or functions in dispensing liquids from a tank vehicle into the fuel tanks of other mobile vehicles. (For Aircraft Refuelers see applicable sections in the *Fire Code*)

This standard is subject to periodic review and updates to accommodate changes in local need or requirements, changes in nationally recognized standards in related technology, or where required by state or federal regulations.

SECTION 15.2 --- DEFINITIONS

15.2.1 Fuel Limit Switch.

A mechanism located on a tank vehicle, which limits the quantity of product dispensed at one time.

15.2.2 Mobile Fueling.

The operation of dispensing liquid fuels from tank vehicles into the fuel tanks of motor vehicles.

15.2.3 Remote Emergency Shut-off Device.

The combination of an operator carried signaling device and a mechanism on the tank vehicle. Activation of the remote emergency shut off device sends a signal to the tanker-mounted mechanism and causes fuel flow to cease.

SECTION 15.3 --- GENERAL REQUIREMENTS

15.3.1 Permit required.

Permit application shall be obtained at the City of Houston Permit Office, 3300 Main Street; 77002, telephone: 713-535-7897, for "Fleet On-Site Mobile Refueling", and approval from the Code Official shall be obtained prior to the engaging in any mobile vehicle fueling operations, practices, or functions.

15.3.2 Approved Locations.

Dispensing of Class I, II, and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles will be approved at commercial, industrial, governmental or manufacturing establishments.

15.3.3 Permitted sites.

15.3.3.1 Site plan.

A detailed Site Plan shall be submitted with each application for a permit. The Site Plan must indicate:

1. All buildings, structures, and appurtenances on site and their use or function
2. All uses adjacent to the property lines of the site
3. Location of storm drain openings
4. Location adjacent waterways or wetlands
5. Information regarding slope, natural drainage, curbing and impounding
6. How a spill will be retained upon the site property
7. Scale of the Site Plan
8. Fire Department Access Roads

15.3.3.2 Adjoining property owners.

The names, addresses, and telephone numbers of all adjoining property owners will be submitted to the Code Official's office along with the Site Plan.

15.3.3.3 Site Inspection.

All prospective mobile refueling sites shall be visited and physically inspected by an inspector from the Code Official's office prior to approval of mobile refueling at a site.

15.3.3.4 Storm Water Run-Off Plan.

The property owner shall develop and file a "Storm Water Run-Off Plan" with the Code Official's office.

15.3.3.5 Notification of Insurance carrier.

The owner shall notify, in writing, their insurance carrier that mobile refueling is being conducted on the insurer's property.

15.3.3.6 Annual inspection.

Permitted sites shall be inspected annually to assure compliance with the requirements of this standard. Inspection reports shall be made available to the public upon request.

15.3.3.7 Fuel spill response plan.

Owners of companies engaging in mobile refueling operations shall provide a written response plan to the Code Official which demonstrates a readiness to respond to a fuel spill, carry out appropriate mitigation measures, and to indicate its process to properly dispose of contaminated materials when circumstances require.

15.3.3.8 Mobile refueling company proof of insurance.

The mobile refueling company shall show proof of pollution insurance to cover the cost of a potential spill and clean-up.

15.3.3.9 Authorization to fuel on private property.

A copy of the 'Certificate of Authorization' to fuel on private property shall be completed and be located in the operation manual.

15.3.3.10 Operational manual contents.

Operational Manual shall contain items listed in Section 15.3.3 - Permitted Sites.

SECTION 15.4 ---OPERATIONAL REQUIREMENTS

15.4.1 Site.

15.4.1.1 Containment.

The mobile refueling containment area shall be subject to final approval by the Code Official dependent on the topography.

15.4.1.2 Access to public.

Mobile refueling operations shall not be conducted in areas accessible to the public.

15.4.1.3 Distance to buildings, property lines, combustible storage.

Mobile refueling operations shall not take place within 50 feet of any residential buildings, or 25 feet from other structures, property lines, public ways or combustible storage.

15.4.1.4 Spills.

Absorbent materials, non-water absorbent pads, a drip pan, an approved container with lid, and a non-metallic shovel shall be provided to mitigate small spills.

15.4.1.5 Ignition source precautions.

Prior to beginning dispensing operations, precautions shall be taken to assure ignition sources are not present.

15.4.1.6 Nighttime refueling operations.

Nighttime fueling operations shall only take place when approved and in adequately lighted areas.

15.4.1.7 Electrical wiring and devices

Electrical devices, ground wires to control static electricity and wiring in areas where fuel dispensing is conducted shall be in compliance with the City of Houston *Electrical Code (National Electric Code)*.

15.4.1.8 Spill Notifications.

The fire department, Texas Commission on Environmental Quality (TCEQ) and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.

15.4.1.9 Fire Department Access Roads.

Fire department access roads with an unobstructed width of 20 feet and a vertical height clearance of at least 14 feet shall be provided to the refueling site.

15.4.1.10 Tractor-trailer Rigs.

Tractor-trailer rigs shall not be used as refueling vehicles.

15.4.2 Refueling Vehicles (Tank Vehicles).

15.4.2.1 Compliance with other agencies.

The tank vehicle shall comply with the requirements of NFPA 385 and local, state and federal Department of Transportation (DOTn) requirements. The tank vehicle's specific function shall include that of supplying fuel to motor vehicle tanks. The vehicle and all its equipment shall be maintained in good repair.

15.4.2.2 Pumps.

Mobile refueling trucks shall be equipped with Underwriters Laboratories (UL) listed or other nationally approved pumps that can transfer fuel without having to run the engine of the refueler apparatus, unless specifically designed for such operations.

15.4.2.3 No smoking signs.

Signs prohibiting smoking or open flames within 25 feet of the tank vehicle or the point of fueling shall be prominently posted on 3 sides of the vehicle (back and both sides).

15.4.2.4 Fire Extinguishers.

A portable fire extinguisher with a minimum rating of 4A, 40:BC shall be provided on the vehicle, with signs clearly indicating the fire extinguisher location. All fire extinguishers shall have a current inspection tag affixed by an approved fire extinguisher service company.

15.4.2.5 Dispensing nozzles and hose.

The dispensing nozzles and hose shall be UL listed for such service. Latch open devices shall not be used. When required, vapor recovery systems must be incorporated into nozzles in order for the nozzle to be approved.

15.4.2.6 Length of hose.

The dispensing hose shall not extend from the hose reel more than 100 feet in length.

15.4.2.7 Protection of hoses.

The tank vehicle shall be positioned with respect to vehicles being fueled so as to prevent vehicular traffic between the tank vehicle and the motor vehicle being fueled and driving over the delivery hose. Fuel hoses shall not be stretched across potential lanes of traffic.

15.4.2.8 Hose reels.

The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the tank vehicle to prevent any accidental discharge while in transit.

15.4.2.9 Brakes- chocks-warning lights.

During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.

15.4.2.10 Fuel limit switch.

All fuel pumps must be equipped with a UL Listed or other approved high-low flow switch or similar device.

15.4.3 Drivers.

15.4.3.1 Constantly attended.

The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels. Vehicles shall be equipped with an approved operator's manual with all qualified operators listed.

15.4.3.2 Emergency communication device.

Operators of tank vehicles used for mobile refueling shall have in their possession at all times an emergency communication device to notify the proper authorities in the event of an emergency.

15.4.3.3 Hose inspection and reports.

Drivers shall provide to the Code Official upon request, daily written reports detailing inspections of the dispensing hose. All pressure hoses shall be inspected at intervals appropriate to service. With the hose fully extended, pressure shall be applied to the hose and couplings to the maximum operating pressure. Any hose or coupling showing signs of leakage, material deterioration, or weakness shall be removed from service or repaired.

15.4.3.4 Topping off of vehicles.

Drivers shall not top-off motor vehicle fuel tanks.

15.4.3.5 Shut off engines.

Drivers shall ensure the engines of vehicles being refueled are shut off during dispensing operations, unless otherwise approved by the Code Official.

15.4.3.6 Remote Emergency Shut-off Device

The drivers shall be in control of the Remote Emergency Shut-off Device at all times to prevent over-fills.

15.4.3.7 License and Certification.

Mobile refueler drivers responsible for dispensing fuel shall possess a Commercial Drivers License with the appropriate endorsements. This license shall be presented to the Code Official upon request. In addition, mobile refueler drivers must show a current certification indicating completion of the "Basic Plus" courses from *Houston Area Contractors' Safety Council* (HACSC) or with one of the *Association of Reciprocal Safety Councils* (ARSC) member councils.

APPENDIX A

**CERTIFICATION OF AUTHORIZATION TO FUEL ON
PRIVATE PROPERTY**

SERVICE PROVIDER

Date: _____

Company name: _____

Telephone number: _____

HFD Vehicle fueling permit number: _____

Date permit expires: _____

CUSTOMER

Date: _____

Name: _____

Telephone number: _____

Address: _____

Customer grants authorization to fuel vehicles: _____

Fueling of vehicles shall be done in a safe manner and in compliance with the City of Houston *Fire Code*, and LSB Standard 15, "Mobile Refueling / Wet Hosing". The submitted operations manual and any other regulations that may be required by other regulating authorities. A copy of the operations manual, including company-authorized operators, shall be maintained at each vehicle-fueling site and made available for inspection upon request.

Service provider signature: _____

Customer signature: _____

REFERENCES

1. City of Houston Fire Code, 2000 International Fire Code, as amended.
2. City of Houston Electrical Code, (NFPA Standard No. 70, "National Electrical Code"), all editions.
3. National Fire Protection Association (NFPA) Standard No. 385, "Tank Vehicles for Flammable and Combustible Liquids".

Conversion factors: 1 inch = 25mm; 1 foot = 305 mm