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Bulk LPG Tank Installation Request

Project Plans Submittal Requirement

Project Details				
Project Name				
Location				
Project Consultant Name				
Gas Contractor Name				
Reference No.		Date		
Proposed Tank(s) Size		No(s)		
Proposed Tank(s) to be Installed	Underground <input type="checkbox"/>	Aboveground <input checked="" type="checkbox"/>		
Project Category	Residential <input type="checkbox"/>	Commercial <input type="checkbox"/>	Industrial <input type="checkbox"/>	

List of Forms / Documents Required to be Filled by Project Consultant Prior to Submittal of Project Plans

Forms	Description	Yes	No	Remarks
A	Project plans submittal application form			
B	Proposal for tank(s) size and consumption details			
C	Statement of compliance for tank(s) size and placement			
D	Statement of compliance for road tanker size and parking availability along with transfer operation point			
E	Statement of compliance for gas piping outside building (NFPA 58)			
F	Statement of compliance for gas piping inside building (NFPA 54)			
G	Gas detection system cause and effect chart			

These guidelines are intended to provide minimum submittal requirements for obtaining LPG tanks installation permit. Additional requirements and/or information may be required based on the individual project.

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A. Application for Bulk LPG Installation

Date			
Project Ref. No.		Revision	
Project Name			
Builder / Owner			
Project Consultant			
Gas Contractor			
Project Category	Residential <input type="checkbox"/>	Commercial <input type="checkbox"/>	Industrial <input type="checkbox"/>
Contact Person			
Tel. No.		Mobile	
Project Location		Zone / Plot No.	

Gas Consumption and Tank Sizes

No(s). of Equipment					
Total Consumption (Liters / Hour)		Revision			
Total Working Hours / Day					
Proposed Tank Size		A/G <input type="checkbox"/>	U/G <input type="checkbox"/>		
No(s). of Tanks					
Estimated Gas Storage for days					
Vaporizer requirement	<input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Vaporizer Capacity		Liter / Hour			

Shop Drawings Submittal : Two set of plan required.

Drawings No. :

1		2	
3		4	
5		6	

The above information provided is true and accurate to the best of my knowledge.

Project Consultant Rep. Name		Title	
Signature		Stamp	

B. Proposal for Tank(s) Size and Consumption Details

Gas Connection(s) Details

1	No. of kitchen(s) located at ground floor	
2	No. of kitchen(s) located at first floor	
3	No. Boiler rooms (laundry) at basement	
4	Others	

Computation of Gas Consumption

The applicant is required to submit comprehensive estimated consumption for each connection provided with no. of equipment's located at each floor along with operating pressures.

Note: Accumulated consumption shall be estimated per day.

Proposed Tank(s) Size (Liters)

No. of LPG Tank(s)

No. of Storage Days

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C. Statement of Compliance for Tank Size, Vaporizer and Placement

1. LPG Tank location

Aboveground LPG Tank :

Tank shall be proposed ensuring Safety Separation distance in compliance with NFPA 58, Section 6 as follows.

- Nearest important building.
- Nearest property line which may be built upon.
- Exterior source of ignition. (Pump, A/C etc..)
- Intakes of appliances or ventilation systems.
- Openings to homes that are below the level of the relief valve.
- Stored trash, hay, or other combustible Material (loose or piled).
- Stored flammable liquids (other than LPG).
- Drainage problem area.
- Other LPG tanks; multiple tank installations.
- Cesspools, septic tanks, water or sewage lines, or any underground utility line.

Underground LPG Tank :

Underground LP-Gas Tank shall be proposed ensuring the safety separation distances in compliance with NFPA 58, section 6 as follows.

- Nearest important building.
- Nearest property line which may be built upon.
- Exterior source of ignition. (Pump, A/C etc..)
- Intakes of appliances or ventilation systems.
- Stored trash, hay, or other combustible material (loose or piled).
- Stored flammable liquids (other than LP-Gas).
- Other LPG tanks; Multiple tank installations.
- Depth of water table
- Rainwater drainage

Ignition sources nearby LPG Tank shall comply as per NFPA 58, section 6.22.

2. Vaporizer location

Proposal of vaporizer in compliance with NFPA 58, section 5.21, 6.21 and 6.22

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D. Statement of Compliance for Road Tanker & Filling Point

1. Road Tanker

Safe movement of Road Tanker and parking.

2. Filling Point

Distance Between Point of Transfers and Exposures		
Part	Exposure	Min. Horizontal Distance (Meter)
a	Buildings, mobile homes, recreational vehicles and modular homes with at least 1-hour fire-rated walls	3.1
b	Buildings with other than at least 1-hour fire-rated walls	7.6
c	Building wall openings or pits at or below the level of the point of transfer	7.6
d	Line of adjoining property that can be built upon	7.6
e	Outdoor places of public assembly, including schoolyard, athletic fields and playgrounds	15.0
f	Public ways, including public streets, highways, thoroughfares and sidewalks:	-
	1. From points of transfer in LPG dispensing stations and at vehicle fuel dispensers	3.1
	2. From other points of transfer	7.6
g	Driveways	1.5
h	Mainline railroad track centerlines	7.6
i	Tanks other than those being filled	3.1
J	Flammable and Class II combustible liquid dispensers and the fill connections of Tanks	3.1
k	Flammable and Class II combustible liquid Tanks, aboveground Tanks and Tanks underground	6.1

- Refer NFPA 58 2011, Figure A.6.22.2.3 for Filling point

3. Filling Line

- Installation of Gas Piping outside the building shall comply as per NFPA 58, Section 5.9 & 6.9.

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E. Statement of Compliance for Gas Piping Outside Building

LPG Piping Outside Building:

Installation of LPG piping outside building area shall be in compliance with NFPA 58, Section 5.9 and 6.9.

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F. Statement of Compliance for Gas Piping Inside Building

LPG Piping Inside Building:

Installation of LPG piping inside building area shall comply with NFPA 54. (Gas Pipe, Regulator, Gas Meter, Appliance Connection etc.)

Prohibition:

LP-Gas system piping installation are not permitted under concrete floors within the building, under building foundations, under ground floors or basement levels, within lift shafts and cavity walls, in compartments or ducts dedicated for electrical systems, in or through HVAC air-distribution chambers (or through a ducted supply, return or exhaust), a clothes chute, chimney or gas vent, along adjacent building services pipeworks, in fire-fighting lobbies, in smoke-stop lobbies, in refuge areas, in fire command center, at protected corridors, at escape corridors, at staircases, in sleeping areas, in rooms housing fire fighting and fire alarm equipments and controls, along adjacent pipeworks and static equipments conveying flammable fluids, along oxidizing corrosive and hazardous materials and in areas employing stationary combustion engines.

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G. Gas Detection System Cause and Effect Chart

Sample of Cause and Effect Chart for Gas Detection System

CAUSE & EFFECT CHART			EFFECT					
			E1	E2	E3	E4	E5	E6
			Activation of Sounder Near Panel	De-activation of tank through pneumatic actuated SOV	De-activation of Main SOV	Activation of Sounder - kitchen/Equipment	De-activation of SOV - kitchen/Equipment	Signal of FACP
Cause	Identification & Service	Tag No.	SO-01	SOV-01	SOV-02	SO-05	SOV-03	
C1	LPG Tank Area - Gas Detector Leak - 15% LEL	EGDS	●					
C2	LPG Tank Area - Gas Detector Leak - 30% LEL		●	●	●			●
C3	LPG Tank Area - Emergency push Button	EP-01		●				
C4	kitchen/Equipment- Gas Detector Leak-15 % LEL	GDS				●		
C5	kitchen/Equipment - Gas Detector Leak-30 % LEL		●			●	●	
C6	kitchen/Equipment - Gas Detector Leak-40 % LEL		●	●	●	●	●	●
C7	kitchen/Equipment- Emergency Push Button	EP-05					●	
C8	Fire at the Building (Signal from FACP)			●			●	

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• Please specify the Availability of the Following in the Tank location, Inside Building and Kitchen

Fire Alarm System	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Remarks	<input type="text"/>
Fire Fighting System	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Remarks	<input type="text"/>
Ventilation System	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Remarks	<input type="text"/>

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