

LPG STORAGE SYSTEM FOR INSITU CYLINDERS FILLING MAINTENANCE CHECKLIST

DETAILS OF LOCATION		
Name		
Address		
Premise Category	Hotel / Institution / Launderette / Restaurant / Resort / Shopping Complex Others:	
DETAILS OF APPROVAL		
License Number		
ATO Number		
ATI Number		
Storage Capacity		
Date of Maintenance		
Date of Latest LPG Storage Compliance Re-Assessment		
LPG STORAGE SYSTEM		
SECTION A: LPG STORAGE	COMPLIANT	REMARKS
1. Safety distances are maintain as required:		
(a) LPG storage to building and boundary		
• zero distance for manifolded group of LPG cylinders (maximum 2.5 kilolitre per storage)	Yes / No	
• maximum numbers of two (2) manifolded group of LPG cylinders installed at zero distance from building boundary	Yes / No	
• minimum 7.5 meter for manifolded group of LPG cylinders of more than 2.5 kilolitre to 10.0 kilolitre	Yes / No	
(b) from flammable or combustible materials, electrical substation, transformer room, generator room, switch room is at least ≥ 5.0 metre	Yes / No	
(c) from refuse chamber is at least ≥ 5.0 metre or 3.0 meter with deflection wall.	Yes / No	
(d) from fixed ignition sources is at least ≥ 4.5 metre	Yes / No	
(e) from exterior source of ignition, openings into direct vent (sealed combustion system) appliances or mechanical air intakes is at least ≥ 1.5 meter	Yes / No	
(f) from underground entrance or drain is at least ≥ 2.0 metre; or	Yes / No	
2. LPG storage area is fenced and securely locked.	Yes / No	
3. Opening into building below the level of relief valve is at least ≥ 1.0 meter horizontally with vapor path ≥ 1 meter.	Yes / No	
4. Floor maintain smooth concrete, suitable materials and is at least ≥ 100 mm above ground level.	Yes / No	
5. Electrical equipment is suitable with Zone 2 application.	Yes / No	
6. Electrical equipment is located above the cylinders, where applicable.	Yes / No	
7. Ventilation is adequately provided.	Yes / No	
8. Ventilation openings provided as close to the floor level.	Yes / No	
9. Door width is at least ≥ 800 mm and suitable for operations and maintenance activities.	Yes / No	
10. Clearance between the top of any cylinder valve and the bottom of window opening is maintain at least ≥ 150 mm.	Yes / No	

SECTION A: LPG STORAGE	COMPLIANT	REMARKS
11. Emergency shut-off valve is provided after 1st stage regulator, accessible and functioning.	Yes / No	
12. LPG storage is not located at the main entrance of the premises.	Yes / No	
13. Working space is sufficient for operations and maintenance activities.	Yes / No	
14. LPG storage is not located below ramps and staircases.	Yes / No	
15. Cylinder condition is free from leakage, corrosion, physical damage and are in serviceable condition.	Yes / No	
16. Cylinder valves and all fittings fitted on the cylinder are free from leaks.	Yes / No	
17. Overfill Protection Device (OPD) of each gas cylinder are well functioning.	Yes / No	
18. Content gauge of each gas cylinder are well functioning and clearly readable.	Yes / No	
19. Fire extinguisher is adequately provided, accessible and within valid certification.	Yes / No	
20. LPG storage area is free from any gas leakage.	Yes / No	
SECTION B: PIPING SYSTEM (FILLING PIPE)	COMPLIANT	REMARKS
1. Filling connection is provided with double non-return valve and free from gas leakage.	Yes / No	
2. Filler caps is provided to prevent the ingress of debris and pests.	Yes / No	
3. Filling connection protected against vehicle damage, tempering and is easily accessible.	Yes / No	
4. Filling pipe is paint and labelled as required by Regulations.	Yes / No	
5. Filling pipe is located at the edge of LPG storage, at a safe position that allows readily connect and disconnect.	Yes / No	
6. Safety distance for the filling connection are maintained as required by Guidelines.	Yes / No	
7. Filling pipe is free from corrosion or damage.	Yes / No	
8. Main isolation valves is functioning.	Yes / No	
9. Individual isolation valves from filling pipe to filling hose is functioning.	Yes / No	
10. Service hoses fitted with back check valve.	Yes / No	
11. Hydrostatic relief valves are installed, fitted with cap and free from corrosion.	Yes / No	
12. Pressure gauges are installed, readable, functioning and suitable range.	Yes / No	
13. Fittings are suitable material, free from any corrosion or damages.	Yes / No	
14. Filling pipe adequately supported to withstand load and vibration.	Yes / No	
15. Height of filling pipe does not exceed 2.0 metre.	Yes / No	
16. Filling hoses and service hose connected to filling pipe is compatible for gas filling activities and do not exceed 1.0 metre length and are free from cracks or deterioration.	Yes / No	
17. Filling pipe not in contact with electrical cable or material that may generate sparks.	Yes / No	
18. Filling pipe and all fittings fitted on the filling pipe is free from any gas leakage.	Yes / No	
19. Safety distance of filler valve maintain as required by the Guidelines and as specified in Section A [Item 1 (b) to (f)]	Yes / No	
20. Filling area are provided with bonding and earthing connection to prevent static discharge.	Yes / No	

SECTION C: PIPING SYSTEM (AFTER FILLING PIPE)	COMPLIANT	REMARKS
1. Piping system free from corrosion, damage and is free from any gas leakage.	Yes / No	
2. Isolation valves at manifold, before and after regulator are functioning.	Yes / No	
3. All fittings fittings and connection are suitable for maximum operating pressure of the system and functioning.	Yes / No	
4. Auto change over where installed, is functioning.	Yes / No	
5. Regulator body is free from leakage and physical damage.	Yes / No	
6. Pressure gauge installed at manifold, inlet and outlet of pressure regulators, readable and functioning.	Yes / No	
7. Pressure readings are within acceptable operating range: <u>Pressure reading at 1st stage regulator –</u> (a) Actual (inlet): (b) Actual (outlet): <u>Pressure reading at 2nd stage regulator –</u> (a) Actual (inlet): (b) Actual (outlet):	Yes / No	
8. Emergency Shut Off Device (ESD) is provided, accessible and functioning.	Yes / No	
9. Solenoid valve where installed, is functioning.	Yes / No	
10. Vaporiser system is well functioning including liquid inlet solenoid valve, heater, thermostat, liquid protection device, pressure gauge, pressure relief valve, electronic system.	Yes / No	
11. Vaporiser water level, for water bath type vaporiser is sufficient.	Yes / No	
12. Strainer / oil trap are serviced, free from blockage checked against leakage.	Yes / No	
13. Gas meter: (a) is located in a ventilated space; (b) is readily accessible for inspection, reading, replacement and maintenance; (c) is located at least 0.9 meter from ignition sources; (d) is free from physical damages, corrosion, vibration or obstruction; and (e) is not exposed to extreme temperature or conditions.	Yes / No	
SECTION E: SAFETY SIGNAGE AND INFORMATIONS:	COMPLIANT	REMARKS
1. Safety signage clearly displayed, and maintain in good condition, comprising: (i) "Smoking is Prohibited". (ii) "Fire, Naked Light and Smoking are Prohibited". (iii) "Nearby Material is a Fire Risk". (iv) "No Handphone". (v) Non-explosion protected electric or electronic equipment including personal electronic devices signage (e.g. cameras, mobile phones, computers, radios, etc.).	Yes / No	
2. Licensed under Section 11, Gas Supply Act 1993 is displayed and still valid.	Yes / No	
3. Isometric/Schematic LPG piping drawing including shut-off points is displayed.	Yes / No	
4. Emergency contact numbers of relevant authorities are displayed.	Yes / No	
5. Emergency contact number of LPG Supplier is displayed.	Yes / No	
6. Emergency contact number of Responsible Person/Competent Person is displayed.	Yes / No	
7. Dedicated parking area for LPG road tanker is provided complete with marking.	Yes / No	
Remarks: _____ 		
Declaration: ☐ I hereby declares that all information and supporting documentation contained and submitted with this checklist are true and is aware that if any information and/or documentation in this checklist submission is false and/or forged, i may be prosecuted under the laws of Malaysia.		
Endorsement by Appointed Competent Person: Signature : _____ Name : _____ Designation : _____ Date: _____ Competency Stamp : _____		Endorsement by Licensee Representative: Signature : _____ Name : _____ Designation : _____ Date : _____ Company Stamp : _____