



**ACS.CoNGLP1 LAV
SAFETY ASSESSMENT CRITERIA
INITIAL & RE-ASSESSMENT
DOMESTIC
NATURAL GAS TO LPG
LEISURE ACCOMODATION VEHICLES**

CoNGLP1 LAV**INITIAL****Introduction**

Comprises:

- 3(b). LPG supply pressures. Operation and positioning of emergency isolation, flow control and valves
- 3(c) LPG cylinder and vessel location, safety and sizing
- 4. Ventilation (for appliances)
- 5. Installation of pipework and fittings
- 12. Chimney standards
- 13. Chimney inspection and testing.

CoNGLP1 LAV can only be awarded when the Candidate holds CoNGLP1.

CBs may adopt Competence and Criteria numbering different to that used in this document.

CB documentation may adopt wording for criteria different to that used in this document, provided the meaning is unaffected.

Range

All LPG fittings in LAVs.

Exclusions

Refillable tank installation

Pre-requisites**Initial**

CoNGLP1.

Re-assessment

CoNGLP1 + CoNGLP1 LAV.

References and normative documents

MIs.

All relevant documents as listed in the Legislative, Normative & Informative Document List (LINDL), inc.:

- HSL56
- GIUSP
- BS EN 1949:2011.
- **BS 5482-2:1977**
- **BS 721**

ACS.SMB.003.ACRND identifies Normative Documents that should be held by ACs.

Abbreviations

AC. Assessment Centre
 CB. Certification Body
 I. Initial
 MIs. Manufacturer's/manufacturers' instructions
 MP. Medium pressure
 R. Re-assessment
 Ref. Reference
 UPSO. Under pressure safety cut-off

3(b). LPG supply pressures, Operation and positioning of emergency isolation, flow controls and valves

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. recognition of supply pressures from gas storage vessels: MP stage		✓	✓
2. operation and positioning of first and second stage regulators		✓	✓
3.			
4.			
5.			
6. identification of causes of under-pressure conditions		✓	
7. operation, positioning and visible indicators of UPSOs		✓	
8. re-setting UPSOs		✓	
9. operation and positioning of limited relief valve		✓	
10. advice to the consumer on re-setting UPSO		✓	
11. operation and positioning of vapour service shut-off valve		✓	
12. Protection against accidental disconnection of supply		✓	

3(c). LPG cylinder and vessel location and safety

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. cylinders:			
(i) installation, location and protection		✓	✓
(ii) construction (inc. ventilation) for compartments, lockers and internal housings	BS EN 1949 5.4	✓	✓
(iii) safety precautions for storage and use		✓	✓
(iv) Shielding requirements for cylinder compartments		✓	✓
(v) requirements when using two LPG supplies		✓	✓
(vi) ventilation safety precautions for storage of cylinders	BS EN 1949 5.5	✓	✓
2. vessels :			
(i) installation		✓	✓
(ii) marking of common vessels commercially available for single supply		✓	✓
(iii) location		✓	✓
3. restrictions for electrical equipment in cylinder compartments			
(i) only ELV equipment and cables not connecting within compartment allowed		✓	✓
(ii) not a potential source of ignition		✓	✓
(iii) protection against mechanical damage		✓	✓
4. requirements when using two LPG supplies (including labelling)		✓	✓
5. Visual inspection of gas storage tank (non-propulsion)	NCC CoP 306 7.1a	✓	✓

4. Ventilation (for appliances)

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. siting of ventilation (wall, window, floor, ceiling and ducted) direct to outside air, or via series air vents	BS EN 721 5.1, 5.2, 5.2.2 , 5.2.3	✓	
2. calculating ventilation for combustion (PC for Re-assessment) (BS 5482-2)		✓	✓
3. Ventilation exercise for fixed ventilation (BS EN 721. Table 1)	BS EN 721. 5.2.1	✓	✓
4. calculating ventilation for enclosed spaces - cupboards, compartments for open, balanced and fan assisted flued appliances (PC for Re-assessment))		✓	✓
5. calculating ventilation for combustion for multi-appliance installations		✓	✓
6. flueless appliances		✓	
7. restrictions on use of screens to prevent entry of vermin		✓	
8. positioning of trunked ventilation into a space containing a gas appliance(s)		✓	
9. ventilation safety precautions for storage of cylinders		✓	✓
10. gas dispersal drains (drop holes)		✓	✓
11. labels and notices (inc BS EN 721 Annex A)		✓	✓

5. Installation of pipework and fittings (and fuel cells and power generators). Range of pipe sizes: 6 mm to 28 mm

PERFORMANCE CRITERIA	REF	I	R
1. join soft copper pipe using appropriate compression fittings, methods and agents		✓	✓
KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. copper pipe and fittings - hard soldering		✓	✓
2. locations where LPG pipework is not to be installed		✓	
3. installing fuel cells		✓	✓
4. installing LPG power generators			
(i) sealing and ventilating and fire protecting generator compartment		✓	✓
(ii) accessibility of controls		✓	✓

12. Chimney Standards (for appliances)

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. open gas flue systems : natural draught:			
(i) Flue system Installations requirements termination positions for open flues pre	BS EN 1949: 2011 11.1	✓	
(ii) termination positions for open flues after Dec. 2000 – MIs Additional expectations for flexible flue systems.	BS EN 1949: 2011 11.1	✓	
(iii) termination positions for open flues after Feb. 2003 Flue shielding and routing requirements.	BS EN 1949: 2011 11.1	✓	✓
2. closed flue systems: natural draught: specific flue heights and termination positions for closed flues		✓	✓
3. balanced & fanned flue appliances: natural draught:			
(i) restrictions for balanced flue termination positions pre Dec. 2000	BS EN 1949: 2011 11.2	✓	
(ii) restrictions for balanced flue termination positions after Dec. 2000 – IGE/UP/8 and MIs		✓	
(iii) restrictions for balanced fanned flue terminal positions after Feb. 2003		✓	✓
4. Underfloor discharge arrangements	BS EN 1949: 2011 11.2	✓	✓
5. Additional restrictions for flue terminations < > 30 g/h LPG in relation to Ventilators.	BS EN 1949: 2011 11.2 Fig 9	✓	✓
6. Automatic shut off devices for flue terminations < > 30 g/h LPG in relation to windows	BS EN 1949: 2011 11.2	✓	✓
7. flue terminations < > 30 g/h LPG in relation to windows	BS EN 1949: 2011 11.2 Fig 10	✓	✓
8. flue terminations in relation to refuelling system, breather tank , ventilators e.t.c.	BS EN 1949: 2011 11.2	✓	✓

N.B. Gas flue requirements for appliances should be assessed in accordance with appliance MIs and BS EN 1949.

13. Flue inspection and testing

PERFORMANCE CRITERIA	REF	I	R
1. inspect flue visually to UKLPG COP21: identify closed flue defects		✓	✓
2. carry out closed flue spillage test		✓	✓
3. Inspection and accessibility of flues	BS EN 1949: 2011 11.2	✓	✓