



**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. <b>cylinders:</b>			
(i) installation, location and protection		✓	✓
(ii) construction 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. <b>vessels :</b>			
(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. 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)		✓	
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. <b>flue systems :</b>			
(i) Flue system Installations requirements	BS EN 1949: 2011 11.1	✓	
(ii) Additional expectations for flexible flue systems.	BS EN 1949: 2011 11.1	✓	
(iii) 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. <b>balanced &amp; fanned flue appliances:</b>			
(i) restrictions for flue termination positions	BS EN 1949: 2011 11.2	✓	
4. Underfloor discharge arrangements	BS EN 1949: 2011 11.2	✓	✓
5. Additional restrictions for flue terminations $\leftarrow$ >30 g/h LPG in relation to Ventilators.	BS EN 1949: 2011 11.2 Fig 9	✓	✓
6. Automatic shut off devices for flue terminations $\leftarrow$ >30 g/h LPG in relation to windows	BS EN 1949: 2011 11.2	✓	✓
7. flue terminations $\leftarrow$ >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. <b>inspect flue visually to UKLPG COP21:</b> identify closed flue defects		✓	✓
2. carry out closed flue spillage test		✓	✓
3. Inspection and accessibility of flues	BS EN 1949: 2011 11.2	✓	✓