



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

**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 for Propane and Butane cylinders		✓	✓
(ii) construction for compartments, lockers and internal housings		✓	✓
(iii) safety precautions for storage and use of cylinders		✓	✓
(iv) Shielding requirements for cylinder compartments		✓	✓
(v) requirements when using two LPG supplies		✓	✓
(vi) ventilation safety precautions for storage of cylinders		✓	✓
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)		✓	✓

### 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		✓	
2. calculating ventilation for combustion (PC for Re-assessment) (BS 5482-2)		✓	✓
3. Habitable compartments, minimum Safety ventilation exercise for fixed ventilation openings non room sealed appliances for caravans and motor caravans. <del>Ventilation exercise for fixed ventilation (BS EN 721. Table 1)</del>		✓	✓
(i) Habitable compartments, minimum Safety ventilation exercise for fixed Ventilation openings for non-room sealed appliances for Caravan holiday homes		✓	✓
4. calculating ventilation for enclosed spaces - cupboards, compartments for open, balanced and fan assisted flued appliances ( <b>PC for Re-assessment</b> )		✓	✓
(i) prohibited zones for discharge openings for the products of combustion in relation to ventilators		✓	✓
5. Habitable compartments > 10m <sup>2</sup>		✓	✓
(i) Alternative safety ventilation arrangements for Caravan Holiday Homes Habitable compartments > 20m <sup>2</sup> floor area, including the use of trickle ventilators		✓	✓
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. High level safety ventilation if not supplied via a roof vent.		✓	✓

10.	gas dispersal drains (drop holes)		✓	✓
11.	labels, and where a cooking warning notice is required		✓	✓

## 5. Installation of pipework and fittings (and fuel cells and power generators). Range of pipe sizes: 6 mm to 35mm

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 – suitability and use (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		✓	
(ii)	Additional expectations for flexible flue systems.		✓	
(iii)	Flue shielding and routing requirements.		✓	✓
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		✓	
4.	Underfloor discharge arrangements		✓	✓
5.	Additional restrictions for flue terminations >30 g/h LPG in relation to Ventilators.		✓	✓
6.	Automatic shut off devices for flue terminations >30 g/h LPG in relation to windows		✓	✓
7.	flue terminations >30 g/h LPG in relation to windows		✓	✓
8.	flue terminations in relation to refuelling system, breather tank, ventilators e.t.c		✓	✓

## 13. Flue inspection and testing

PERFORMANCE CRITERIA		REF	I	R
1.	inspect flue visually to Liquid Gas UK COP21: identify closed flue defects		✓	✓
2.	carry out closed flue spillage test		✓	✓
3.	Inspection and accessibility of flues		✓	✓

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