



**ACS.CCLP1 LAV  
SAFETY ASSESSMENT CRITERIA  
INITIAL & RE-ASSESSMENT  
DOMESTIC LPG  
LEISURE ACCOMMODATION VEHICLES**

**CCLP1 LAV****INITIAL & RE-ASSESSMENT****Introduction**

Tests gas safety competence in core domestic LPG competencies for LAVs.

CCLP1 LAV can only be awarded when the Candidate holds CCLP1.

Comprises:

- 3(b). LPG supply pressures – operation and positioning of emergency isolation, flow control and valves for bulk gas storage vessels
- 3(c). LPG cylinder and vessel location and safety requirements
- 4. Ventilation
- 5. Installation of pipework and fittings post-delivery (and inspection of fuel cells and power generators).
- 12. Chimney Standards
- 13. Chimney inspection and testing
- 14. Installation of open, closed, balanced and fan assisted flue assemblies.

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 fittings in LAVs.

**Exclusions**

Refillable tank installation

**Pre-requisites*****Initial***

CCLP1.

***Re-assessment***

CCLP1 + CCLP1 LAV.

**References and normative documents**

MIs.

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

- HSL56
- GIUSP
- LGUK CoP32
- BS 1949:
- BS EN 721
- TB118

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

## Abbreviations

AC. Assessment Centre  
 CB. Certification Body  
 ELV. Extra low voltage  
 I. Initial  
 LAV. Leisure accommodation vehicle  
 MIs. Manufacturer's/manufacturers' instructions  
 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 for bulk gas storage vessels

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. recognition of supply pressures from gas storage vessels:		✓	✓
2. operation and positioning of vapour service shut-off valve		✓	
3. operation and positioning of first and second stage regulators		✓	✓
4. pressure regulators and working pressure requirements <ul style="list-style-type: none"> <li>• holiday homes</li> <li>• road going vehicles</li> </ul>		✓	✓
4a protection against overpressure in road vehicles and holiday homes		✓	✓
7. identification of causes of under-pressure conditions		✓	
8. operation, positioning and visible indicators of UPSOs		✓	
9. range & re-setting UPSOs		✓	
10. operation and positioning of limited relief valve		✓	
11. advice to consumer on re-setting UPSOs		✓	
12. Protection against accidental disconnection of supply		✓	✓
13. Max capacity / flow rate/ labels for LPG found in road vehicles		✓	✓
14. Max capacity / flow rate / labels for LPG found in caravan holiday homes		✓	✓

### 3(c). LPG cylinder and vessel location, safety and sizing

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. <b>location and safety of cylinders:</b>			
(i) Different installation methods, location and protection of Propane and Butane cylinders for use in: - <ul style="list-style-type: none"> <li>• road vehicles</li> <li>• holiday homes</li> </ul>		✓	
(ii) General construction of compartments, lockers and internal housings found in road vehicles and holiday homes		✓	
(iii) safety precautions for storage and use of cylinders including shut off valves		✓	✓
(iv) Shielding requirements for cylinder compartments		✓	✓
(v) ventilation safety precautions for storage of cylinders		✓	✓
2. location and safety of vessels		✓	✓
3. marking of common vessels commercially available for single supply		✓	✓
4. restrictions & requirements when using two LPG supplies (including labelling)		✓	✓
5. <b>restrictions for electrical equipment in cylinder compartments:</b>			
(i) only ELV equipment and cables not connecting within compartment allowed		✓	✓
(ii) <del>not</del> precautions / a potential source of ignition , exhaust systems etc.		✓	✓
(iii) protection against mechanical damage		✓	✓
6. Periodical visual inspection of fixed gas storage tank (non-propulsion)		✓	✓
7. OPSO, protection against overpressure found installed found in		✓	✓

	road vehicles			
8.	LPG Regulators and Safety devices found in LAV's. <ul style="list-style-type: none"> <li>road vehicles</li> <li>holiday homes</li> </ul>	LGUK CoP32 2.71 to 2.713.5 Table 3 and 5	✓	✓
9	Awareness of LPG refillable tanks, or cylinders using filling points and accessories for road vehicles	BS EN 1949 Section 13	✓	✓
10.	Relief valve vent pipe positioning	LGUK CoP32 2.8.4 & Table 4	✓	✓
11.	Inspection and Maintenance	LGUK CoP32 4.2	✓	✓
12	Consumer Guidance for Regulators	LGUK guidance sheet 39	✓	✓

#### 4. Ventilation

PERFORMANCE CRITERIA		REF	I	R
1.	calculate correct free area of a selection of air vents		✓	
2.	identify correct and incorrect types of air vents and grilles e.g. fly screens		✓	
3.	identify installation of inadequate ventilation		✓	✓
KNOWLEDGE AND UNDERSTANDING (these criteria are PC for re-assessment)		REF	I	R
1.	siting of safety ventilation (wall, window, floor, ceiling and ducted) direct to outside air, or via series air vents		✓	✓
2.	<b>requirements for ventilation</b>			
(i)	Habitable compartments, minimum Safety ventilation exercise for fixed ventilation openings non room sealed appliances for caravans and motor caravans		✓	✓
(ii)	Habitable compartments, minimum Safety ventilation exercise for fixed Ventilation openings for non-room sealed appliances for Caravan holiday homes		✓	✓
3.	location & installation of ventilation grilles and vents		✓	
4.	types of grilles and vents and prohibited zones for the discharge openings		✓	
(i)	prohibited zones for discharge openings for the products of combustion in relation to ventilators		✓	✓
5.	additional ventilation requirements e.g., extractor fans, cooker hoods, dryers etc to include labels, and where a cooking warning notice is		✓	
6.	labels and where a cooking warning notice is required notices		✓	✓
7.	<i>criteria removed</i>			
8.	High level safety ventilation, if not supplied via a roof vent.		✓	✓
9.	ventilation for enclosed spaces - cupboards, compartments for open, balanced and fan assisted flue appliances		✓	✓
(i)	Habitable compartments > 10m <sup>2</sup>		✓	✓
(ii)	Alternative safety ventilation arrangements for Caravan Holiday Homes Habitable compartments > 20m <sup>2</sup> floor area, including the use of trickle ventilators		✓	✓
10.	flueless appliances		✓	
11.	<i>criteria removed</i>			
12.	positioning of trunked ventilation into a space containing a gas appliance		✓	
13.	gas dispersal drains (drop holes)		✓	✓

6. **Installation of pipework and fittings post-delivery (and inspection of fuel cells and power generators). Range of pipe sizes: 6 mm to 35 mm**

PERFORMANCE CRITERIA	REF	I	R
1. join copper pipe to suitable hoses using appropriate fittings, methods and agents suitable LAV's.		✓	
2. join different pipe materials with appropriate compression/mechanical fittings, methods, and agents suitable to a : <ul style="list-style-type: none"> <li>• Holiday home Installation</li> <li>• To road going LAV</li> </ul>		✓	
3.			
4. disconnect LPG cylinder from pipework, observing all safety precautions		✓	
5.			
6.			
7.			
8. Work is tightness tested		✓	
9. purge installation of air (apply any protective coating OQ)		✓	
KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. copper pipe and fittings standards suitability and use - hard soldering		✓	
2. galvanised steel pipe and fittings-standards suitability and use		✓	
3. jointing and cleaning agents for copper, stainless and galvanised steel pipework		✓	
4. restrictions on use of union, compression and capillary fittings found in road vehicles and holiday homes		✓	
5. locations where LPG pipework is not to be installed or avoided		✓	
6. installing fuel cells			
7. <b>Inspection of installed LPG power generators &amp; fuel cells:</b>			
(i). sealing and ventilating and fire protecting generator compartment		✓	✓
(ii). accessibility of controls		✓	✓
8. recognise types and use of flexible pipework, tube, hose, nozzles, manifolds and assemblies for road vehicles and holiday homes		✓	✓
9. use of Pressed fit fittings in holiday homes		✓	✓
10. use and restrictions to the use of corrugated stainless-steel pliable tube in Holiday homes and road vehicles		✓	✓
11. working pressure & marking		✓	✓
12. pipe supports in Holiday homes and road vehicles	BS EN 1949-2021 9.7.1, 9.7.2	✓	✓
13. gas escape detective devices	BS EN 1949-2021 8.7	✓	✓
14. general selection of appliance and suitability of connection methods	BS EN 1949 -2021 Section 10 and Section 11	✓	✓
15. Appliance shut off valve and labelling requirements	BS EN 1949-2021 9.8 -9.8.6 Fig 16	✓	✓
16. use of appliance slide out and valves in road vehicles	BS EN 1949-2021 10.3	✓	✓
17. Quick release self-sealing couplings	LGUK CoP32 2.6.7	✓	✓
18. use of safety closing devices in road going vehicles	BS EN 1949-2021 7.2.2.2	✓	✓

## 12. Chimney Standards

KNOWLEDGE AND UNDERSTANDING	REF	I	R
1. <b>flue systems:</b>			
(i) Flue system Installation's requirements		✓	✓
(ii) Additional expectations for flexible flue systems.		✓	✓
(iii) Flue shielding and routing requirements.		✓	✓
(iv) Additional requirements for closed flue systems: natural draught: specific flue heights and termination positions for closed flues		✓	✓

(v)	general advice and restrictions to the installation of non-room sealed appliances found in road vehicles and holiday homes		✓	✓
2.	Flue Terminations			
(i)	restrictions for flue termination positions		✓	✓
(iv)	requirements for flue terminal guards		✓	
3.	room sealed, fanned draught: restrictions on lengths, bends etc.		✓	
5	Underfloor discharge arrangements		✓	✓
7.	Additional restrictions for flue terminations >30 g/h LPG in relation to Ventilators.		✓	✓
8.	Automatic shut off devices for flue terminations >30 g/h LPG in relation to windows		✓	✓
9.	flue terminations in relation to windows windows		✓	✓
10.	flue terminations in relation to refuelling system, breather tank, ventilators e.t.c.		✓	✓

### 13. Chimney inspection and testing

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

### 14. Installation of open, closed, balanced and fan assisted flue assemblies

PERFORMANCE CRITERIA		REF	I	R
1.	fan assisted: number of bends within flue length	MI's	✓	
KNOWLEDGE AND UNDERSTANDING		REF	I	R
1.	condensing appliance flues	MI's	✓	
2.	condensate disposal	MI's	✓	✓