



**ACS.VESLP2  
SAFETY ASSESSMENT CRITERIA  
INITIAL & RE-ASSESSMENT  
DOMESTIC.LPG  
SINGLE SUPPLY GAS STORAGE  
VESSELS.PE PIPES**

**VESLP2****INITIAL & RE-ASSESSMENT****Introduction**

Tests gas safety competence in gas storage vessel connections, controls and safety requirements, PE electro fusion jointing, sizing external above and below ground pipework.

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

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

**Range**

Bulk storage with pipework of diameter  $\leq 63$  mm and/or with volumes up to and exceeding values in BS 5482-1 (TM 83) above ground and buried below ground multiple supplies.

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

CCLP1 EP, PD, LAV or RPH.

***Re-assessment***

CCLP1 EP, PD, LAV or RPH + VESLP2.

**Initial and Re-assessment**

- where multiple gas supplies are to single dwellings and installation volume and pipe size is within scope of BS 5482-1, tests for tightness within BS 5482-1 may be applied
- operatives involved in installing gas supplies above scope of volumes/pipe sizes within BS 5482-1 will, in addition, need TPCP1.

**Exclusions**

Positioning and siting of vessels, testing, commissioning, filling and purging vessels, digging and refilling pits and trenches for underground storage and pipework, construction of vessel sites, erection of compounds, foundations and structural vessel supports, pipework containing LPG in a liquefied state, handling delivery of coiled PE pipework, application of pipework protection and any work downstream of isolation valve to property.

**References and normative documents**

MIs.

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

- HSL56
- BS 5482 - 1 & 2
- UKLPG COP 1- Parts 1&2
- UKLPG COP 22
- UKLPG TM 83
- GIUSP
- UKLPG COP 25.

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

## Abbreviations

AC. Assessment Centre  
 CB. Certification Body  
 ECV. Emergency control valve  
 HP. High pressure  
 I. Initial  
 IP. Intermediate pressure  
 LP. Low pressure  
 MIs. Manufacturer's/manufacturers' instructions  
 OP. Operating pressure  
 R. Re-assessment  
 Ref. Reference

PERFORMANCE CRITERIA	REF	I	R
<b>1. PE - electro-fusion jointing:</b>			
(i) cut pipe squarely using appropriate tools		√	√
(ii) de-burr pipe and remove shavings using appropriate tools		√	√
(iii) select fusion joint; assemble and clamp onto PE pipe using appropriate equipment		√	√
(iv) raise fusion fitting to correct temperature and time using appropriate equipment		√	√
(v) remove equipment and visually examine joint		√	√
(vi) check work carried out is gas tight		√	√
<b>2. PE - compression jointing:</b>			
(i) cut pipe squarely using appropriate tools		√	√
(ii) de-burr pipe and remove shavings using appropriate tools		√	√
(iii) position tube liner within pipe		√	√
(iv) position anti shear sleeve of correct length correctly in relation to joint		√	√
(v) assemble compression fitting and tighten joint		√	√
(vi) check work carried out is gas tight		√	√
3. position approved squeeze-off tool and operate on pipe		√	√
4. select correct material for protecting pipe above ground		√	√
5. use correct sealant for making joints at HP, IP and LP levels		√	√
<b>6. test IP pipework with air</b>			
(i) connect inline test tee and attach appropriate pressure gauge		√	√
(ii) inject air into system until gauge reads 1.5 times OP		√	√
(iii) isolate pressure source		√	√
(iv) leave for min. 5 minutes stabilization		√	√
(v) note reading on gauge		√	√
(vi) leave for 15 minutes		√	√
(vii) note reading; if there is no discernable pressure drop, installation is sound		√	√
(viii) if a drop is discernable, eliminate leak and repeat test from 6(ii)		√	√
<b>7. test IP pipework with LPG</b>			
(i) carry out let-by test on tank outlet valve		√	√
(ii) connect an inline test tee and attach an appropriate gauge		√	√
(iii) close ECV or other downstream valve to which tightness test will apply		√	√
(iv) open tank outlet valve to charge service pipework to lock-up pressure		√	√
(v) close tank outlet valve and slowly release gas safely through an appropriate fitting in open air until pressure reaches 80% of normal IP		√	√
(vi) leave for min. 5 minutes stabilization and record pressure		√	√
(vii) leave for 15 minutes		√	√
(viii) note reading; if there is no discernable pressure drop and no smell of gas, installation is sound		√	√
(ix) if a drop is discernable, re-pressurise system and test all visible joints with LDF. Eliminate leak and repeat test from 7(iv)		√	√
(x) remove test tee; turn on tank outlet valve and test all joints in short HP section upstream of first stage regulator and other joints made after tightness test, with LDF or suitable gas detector		√	√
<b>KNOWLEDGE AND UNDERSTANDING</b>	<b>REF</b>	<b>I</b>	<b>R</b>
1. types of copper, galvanised steel and PE pipe and fittings for above and below ground		√	
2. pipe sizing - including theoretical exercise (excludes network)		√	
3. precautions when installing underground pipework, routing, bending, adjacent services, building connections, sleeving, depth of cover, marking and recording		√	

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4.	use of anti-shear sleeves		√	
5.	using squeeze-off equipment on PE pipework		√	√
6.	use of manifolds to link gas storage vessels at HP		√	√
7.	purging external above and below ground pipework with volumes exceeding values in BS 5482 - 1 (TM 83) using an inert gas		√	√
8.	tightness testing external above and below ground pipework with volumes outside scope of BS 5482-1 (TM 83)		√	√
9.	PE pipe and fittings for non-domestic applications		√	√
10.	recognition of suitable PE fusion welds		√	√