

Issue:	5
Date:	09-Jul-04
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Directive 97/23/EEC

Pressure Equipment Categorisation

Date	10-Jun-05		
Done by	Richard Brooks		
Job No.	1136		
Document No.	05D0765		
Client	The Energy Group		
Equipment	Fossil Fuel Stabilizer		
Type(1)	V=vessel	p	
	B=Boiler		
	C=Pressure cooker		
	P=Pipework		
Fluid state (2)	Liquid (L)	g	
	Gas (G)		
Fluid group (3)	Group 1: Hazardous	1	
	Group 2: Non hazardous		
Design pressure (bar)		Nominal Diameter, DN (mm)	
1000 bar		25 mm	
PS.V	25000 bar.mm		
		Unstable gas? (Y/N) (5)	
		Safety accessory? (Y/N) (7)	
Max Operating temperature over 350C?(Y/N) (8)			100
Table used	6		
Category	SEP		

Date	10-Jun-05		
Done by	Richard Brooks		
Job No.	1136		
Document No.	05D0765		
Client	The Energy Group		
Equipment	Fossil Fuel Stabilizer		
Type(1)	V=vessel	p	
	B=Boiler		
	C=Pressure cooker		
	P=Pipework		
Fluid state (2)	Liquid (L)	g	
	Gas (G)		
Fluid group (3)	Group 1: Hazardous	1	
	Group 2: Non hazardous		
Design pressure (bar)		Nominal Diameter,DN (mm)	
20 bar		50 mm	
0	1000 bar.mm		
		Unstable gas? (Y/N) (5)	
		Safety accessory? (Y/N) (7)	
Max Operating temperature over 350C?(Y/N) (8)			100
Table used	6		
Category	I		

Date	10-Jun-05		
Done by	Richard Brooks		
Job No.	1136		
Document No.	05D0765		
Client	The Energy Group		
Equipment	Fossil Fuel Stabilizer		
Type(1)	V=vessel	p	
	B=Boiler		
	C=Pressure cooker		
	P=Pipework		
Fluid state (2)	Liquid (L)	g	
	Gas (G)		
Fluid group (3)	Group 1: Hazardous	1	
	Group 2: Non hazardous		
Design pressure (bar)		Nominal Diameter,DN (mm)	
21 bar		50 mm	
PS.V	1050 bar.mm		
		Unstable gas? (Y/N) (5)	
		Safety accessory? (Y/N) (7)	
Max Operating temperature over 350C?(Y/N) (8)			100
Table used	6		
Category	II		

Date	10-Jun-05		
Done by	Richard Brooks		
Job No.	1136		
Document No.	05D0765		
Client	The Energy Group		
Equipment	Fossil Fuel Stabilizer		
Type(1)	V=vessel	p	
	B=Boiler		
	C=Pressure cooker		
	P=Pipework		
Fluid state (2)	Liquid (L)	g	
	Gas (G)		
Fluid group (3)	Group 1: Hazardous	1	
	Group 2: Non hazardous		
Design pressure (bar)		Nominal Diameter,DN (mm)	
10 bar		100 mm	
PS.V	1000 bar.mm		
		Unstable gas? (Y/N) (5)	
		Safety accessory? (Y/N) (7)	
Max Operating temperature over 350C?(Y/N) (8)			100
Table used	6		
Category	I		

Date	10-Jun-05		
Done by	Richard Brooks		
Job No.	1136		
Document No.	05D0765		
Client	The Energy Group		
Equipment	Fossil Fuel Stabilizer		
Type(1)	V=vessel	p	
	B=Boiler		
	C=Pressure cooker		
	P=Pipework		
Fluid state (2)	Liquid (L)	g	
	Gas (G)		
Fluid group (3)	Group 1: Hazardous	1	
	Group 2: Non hazardous		
Design pressure (bar)		Nominal Diameter, DN (mm)	
11 bar		100 mm	
PS.V	1100 bar.mm		
		Unstable gas? (Y/N) (5)	
		Safety accessory? (Y/N) (7)	
Max Operating temperature over 350C?(Y/N) (8)			100
Table used	6		
Category	II		

Date	10-Jun-05		
Done by	Richard Brooks		
Job No.	1136		
Document No.	05D0765		
Client	The Energy Group		
Equipment	Fossil Fuel Stabilizer		
Type(1)	V=vessel	p	
	B=Boiler		
	C=Pressure cooker		
	P=Pipework		
Fluid state (2)	Liquid (L)	g	
	Gas (G)		
Fluid group (3)	Group 1: Hazardous	1	
	Group 2: Non hazardous		
Design pressure (bar)		Nominal Diameter, DN (mm)	
23 bar		150 mm	
PS.V	3450 bar.mm		
		Unstable gas? (Y/N) (5)	
		Safety accessory? (Y/N) (7)	
Max Operating temperature over 350C?(Y/N) (8)			100
Table used	6		
Category	II		

Date	10-Jun-05		
Done by	Richard Brooks		
Job No.	1136		
Document No.	05D0765		
Client	The Energy Group		
Equipment	Fossil Fuel Stabilizer		
Type(1)	V=vessel	p	
	B=Boiler		
	C=Pressure cooker		
	P=Pipework		
Fluid state (2)	Liquid (L)	g	
	Gas (G)		
Fluid group (3)	Group 1: Hazardous	1	
	Group 2: Non hazardous		
Design pressure (bar)		Nominal Diameter, DN (mm)	
24 bar		150 mm	
PS.V	3600 bar.mm		
		Unstable gas? (Y/N) (5)	
		Safety accessory? (Y/N) (7)	
Max Operating temperature over 350C?(Y/N) (8)			100
Table used	6		
Category	III		

## Notes

1 Where volume and Nominal Diameter of a pressure accessory are equally appropriate, it should be categorised as a vessel and as pipework and the greater category taken.

2 Fluid state:

Gas: Gases, liquefied gases, gases dissolved under pressure, vapours and also liquids with a vapour pressure greater than 0.5 Barg at the maximum allowable temperature

Liquid: Liquids having a vapour pressure at the maximum allowable temperature of not more than 0.5 Barg

3 Group 1: Dangerous fluids - Explosive, flammable, toxic, oxidising.

Group 2: All other fluids not covered by group 1.

4 Pressure cookers, fire extinguishers and breathing air cylinders are uprated to category 3

5 Equipment intended for unstable gases in categories 1&2 are uprated to category 3

6 Manually fed solid fuel boilers <110C and >50 bar litres have special dispensation.

7 Safety accessories are in the same category as the equipment they protect or category IV.

8

Category 2 piping containing fluids at >350C is uprated to category 3.