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				р				
71 ()	B=Boiler								
	C=Pressure	cooker							
	P=Pipewor								
Fluid state (2)	Liquid (L)			g					
	Gas (G)				7				
Fluid group (3)	Group 1: H	Hazardous 1							
0 1			n hazardous						
De	esign pressu	re (bar)		Nom	inal Diameter,DN (mm)			
	1000	bar			25 mm				
PS.V			25000	bar.mm					
				Unstable	gas? (Y/N) (5)				
				Safety acc	cessory? (Y/N) (7)				
Max Operating	temperature	e over				100			
350C?(Y/N) (8)	-								
Table used		6							
Category				SE	P				

Date		1	0-Jun-05			
Done by		Richard Brooks				
Job No.			1136			
Document No.		C	5D0765			
Client		The E	nergy Gro	up		
Equipment		Fossil	Fuel Stabil	izer		
Type(1)	V=vessel			р		
	B=Boiler					
	C=Pressure	e cooker				
	P=Pipework					
Fluid state (2)	Liquid (L)			g		
	Gas (G)					
Fluid group (3)	Group 1: Hazardous			1		
0 1		oup 2: Non hazardous				
De	esign pressu		Nom	Nominal Diameter, DN (mm)		
	20	bar		50 mm		
0		1000) bar.mm			
			I	20(07)		
			Unstable	gas? (Y/N) (5)		
			Safety acc	cessory? (Y/N) (7)		
Max Operating 350C?(Y/N) (8)	temperature	e over			100	
Table used			6			
Category			1			

Date	10-Jun-05							
Done by	Richard Brooks							
Job No.		1136						
Document No.		05D0765						
Client			The E	nergy Gro	up			
Equipment			Fossil F	uel Stabil	lizer			
Type(1)	V=vessel				р			
	B=Boiler							
	C=Pressure cooker							
	P=Pipewor	k						
Fluid state (2)	Liquid (L)			g				
	Gas (G)							
Fluid group (3)	Group 1: Ha	zardous 1						
	Group 2: No	on hazardo	us					
D	esign pressu	re (bar) Nominal Diameter,D			inal 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	e over				100		
350C?(Y/N) (8)								
Table used		6						
Category		II						

Date	10-Jun-05							
Done by		Richard Brooks						
Job No.		1136						
Document No.		05D0765						
Client			The E	nergy Gro	up			
Equipment			Fossil F	uel Stabil	lizer			
Type(1)	V=vessel				р			
	B=Boiler							
	C=Pressure							
	P=Pipeworl	K						
Fluid state (2)	Liquid (L)							
	Gas (G)							
Fluid group (3)				1				
	Group 2: No		us					
D	esign pressu			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				100		
350C?(Y/N) (8)								
Table used		6						
Category		I						

Date		10-Jun-05						
Done by	Richard Brooks							
Job No.		1136						
Document No.		05D0765						
Client			The E	nergy Gro	pup			
Equipment			Fossil F	uel Stabi	lizer			
Type(1)	V=vessel p B=Boiler C=Pressure cooker P=Pipework				p			
Fluid state (2)	Liquid (L) Gas (G)				g			
Fluid group (3)	Group 1: H	azardous on hazardo	us		1			
D	esign pressu			Nom	ninal Diameter,DN (mm)		
		bar			100 mm	,		
PS.V			1100	bar.mm				
				Unstable	gas? (Y/N) (5)			
				Safety acc	cessory? (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 E	nergy Gro	up			
Equipment			Fossil F	uel Stabil	izer			
Type(1)	V=vessel p							
	B=Boiler							
	C=Pressure o	cooker						
	P=Pipework							
Fluid state (2)	Liquid (L)	Liquid (L) g						
	Gas (G)							
Fluid group (3)	Group 1: Ha	zardous	ous 1					
	Group 2: No:	n hazardo						
D	esign pressure	re (bar) Nominal Diameter,DN			inal Diameter,DN (mm)		
	23 b			150 mm				
PS.V			3450	bar.mm				
				Unstable	gas? (Y/N) (5)			
				Safety accessory? (Y/N) (7)				
Max Operating	temperature	over				100		
350C?(Y/N) (8)								
Table used		6						
Category		II						

Date	10-Jun-05							
Done by	Richard Brooks							
Job No.		1136						
Document No.		05D0765						
Client			The E	nergy Gro	up			
Equipment			Fossil F	uel Stabil	lizer			
Type(1)	V=vessel				p			
	B=Boiler				oup coup coup colizer p g 1 minal Diameter,DN (mm) 150 mm e gas? (Y/N) (5) ccessory? (Y/N) (7)			
	C=Pressure	cooker						
	P=Pipework	(
Fluid state (2)	Liquid (L)			g				
	Gas (G)							
Fluid group (3)	Group 1: Ha	zardous	ous 1					
	Group 2: No	n hazardo	us					
D	esign pressur	e (bar)	(bar) Nominal Diameter, DN			mm)		
	24			150 mm				
PS.V			3600	bar.mm				
				Unstable	gas? (Y/N) (5)			
			Safety accessory? (Y/N) (7)					
Max Operating	temperature	over				100		
350C?(Y/N) (8)								
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.