

Compressed Gases - Risk assessment form

Introduction

The Management of Health and Safety at Work Regulations 1999 require every employer to make a suitable and sufficient risk assessment of the risks to health and safety of his employees to which they are exposed while at work. With regard to gases and cryogenics, other more specific regulations may also need to be considered, namely:-

- The Confined Space Regulations 1997
- The Control of Substances Hazardous to Health Regulations 2002 (as amended)
- The Pressure Systems Safety Regulations 2000
- The Provision and Use of Work Equipment Regulations 1998
- The Manual Handling Operations Regulations 1992
- The Dangerous Substances and Explosive Atmospheres Regulations 2002

Person responsible for this activity;

Name;	Position;	School;
Dept;	Professional Service;	
Signature; _____	Date; _____	

Person conducting this assessment

Name;	Position;	School;
Dept;	Professional Service;	
Signature; _____	Date; _____	

Where will this activity be conducted?

Room(s);	Building;	Area of campus;
Dept;	Professional Service;	School;

Part 1 Identification of hazards

Indicate as

		appropriate	
1	Are non-flammable, non-toxic "industrial" gases used in the activity?	Y / N	List type & cylinder size;
2	Are flammable gases used in the activity?	Y / N	List type & cylinder size;
3	Are gases with any other hazardous property (e.g. toxic, corrosive etc.) used in the activity?	Y / N	List type, cylinder size & hazardous properties;
4	Are medical gases used in the activity?	Y / N	List type and cylinder size;
5	Are cryogenic liquids used in the activity?	Y / N	Substance(s);
6	Does the activity involve mixing fuel gas with oxidising gas and the resulting mixture being burned?	Y / N	Describe;
7	Are the gas cylinders / vessels located within a laboratory or workshop?	Y / N	
8	Are the gas cylinders / vessels in a remote location and the gases / liquids piped to a point of use?	Y / N	Describe;
9	Is manual handling of gas cylinders / vessels into position a necessity?	Y / N	Describe;
10	Does the room where the gases / vessels are located benefit from forced ventilation?	Y / N	Describe;
11	Is a lift used to transport cylinders / vessels between floors?	Y / N	Describe;

Part 2 People at risk

1	Identify those people who may be at risk from the activity and how they might be harmed	Workers directly involved in the activity; Other workers in the vicinity; E.g. cleaners, ancillary or maintenance Workers Others;
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Part 3 Existing control measures

Indicate as

Further assessment		appropriate	
	If the answer to Q2 of Part 1 is “Yes”, then a separate DSEAR risk assessment is required. Has this been done?	Y / N	If yes, give Ref. No;
1	If the answer to Q3 of Part 1 is “Yes”, then a separate COSHH risk assessment is required. Has this been done?	Y / N	If yes, give Ref. No;
2	If the answer to Q’s 7 & 9 of Part 1 is “Yes”, then a separate manual handling risk assessment is required. Has this been done?	Y / N	If yes, give Ref. No;
3	If the answer to Q 11 of Part 1 is “Yes”, then a separate confined space risk assessment is required. Has this been done?	Y / N	If yes, give Ref. No;
Piped systems			
4	If a piped system is in place, is it inspected and maintained in accordance with the relevant Regulations?	Y / N	Details of contractor;
5	If a piped system is in place, is it subject to any user inspections?	Y / N	Describe;
Storage and use			
6	Are cylinders stored upright and properly secured, (e.g. by chains or straps)?	Y / N	
7	Are cylinders correctly segregated?	Y / N	Describe;
8	Are measures in place to minimise the number of cylinders located in the laboratory?	Y / N	
9	Is appropriate signage present in areas where cylinders are stored and used?	Y / N	
10	Is the area spacious enough, clean and adequately lit?	Y / N	
11	Is the room adequately ventilated?	Y / N	Describe;
12	Is there means of detecting Oxygen deficiency (e.g. static monitor / alarm)?	Y / N	Make, model and serial number;
13	Is the monitor subject to a suitable service / maintenance regime?	Y / N	Details;
14	Are cylinders kept away from sources of ignition and other flammables?	Y / N	Describe;
15	If cylinders are stored outside, are they protected from unauthorised	Y / N	Describe;

	tampering (e.g. caged)		
16	Are cylinders protected from extremes of temperature?	Y / N	Describe;
Regulators & accessories			
17	Are regulators correct for the job and compatible with the gases in question?	Y / N	
18	Are regulators suitable for the inlet pressure generated?	Y / N	
19	Are regulators within their 5 year working lifespan? (2 years for those used with corrosive gases).	Y / N	
20	Are regulators subject to annual maintenance checks?	Y / N	Details;
21	Are regulators subject to user checks?	Y / N	Details;
22	Are correct tools available for fitting regulators and accessories?	Y / N	
23	If the answer to Q6 of Part 1 is "Yes" have non-return valves and flashback arrestors been fitted?	Y / N	
Personal Protective Equipment (PPE)			
24	Where necessary, is suitable PPE available for users? E.g. gloves, goggles, full face protection etc)	Y / N	Type;
25	Is PPE adequately stored?	Y / N	Details;
26	Is there any special emergency equipment required? (E.g. breathing apparatus (BA)).	Y / N	
27	Is the equipment available and suitably maintained?	Y / N	Make , model, serial no. and location;
Emergency procedures			
28	Are emergency procedures defined and are all users familiar with what to do in an emergency?	Y / N	Details;
Information, instruction & training			
29	Is the material safety data sheet (MSDS) available and are users familiar with the properties of the gas?	Y / N	
30	Have users received adequate instruction and training within the School / Department?	Y / N	Describe;
31	Are formal training records kept?	Y / N	Details;

32	Have users attended any formal compressed gas / cryogenics training courses?	Y / N	Details;
33	If applicable, have users been trained in the use of emergency equipment?	Y / N	Details;