

Document Title: Provision and Use of Pressure Equipment & Systems Policy

& Procedure.

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1. Introduction

RHSU uses pressure systems in its operations and accepts that it has a duty of care to ensure the use of these is done in a manner that is safe and legal. The legal standards for this are given in the Pressure Equipment Regulations 1999 (PER) and the Pressure Systems Safety Regulations 2000 (PSSR).

The Regulations apply to the design, manufacture and conformity assessment of pressure equipment and assemblies of pressure equipment with a maximum allowable pressure greater than 0.5 bar.

The delivery and storage of transportable pressure equipment is covered by the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDGTPER), this applies to all cylinder gases delivered to and used by RHSU. The cylinders provided are covered by the Simple Pressure Vessels (safety) Regulations 1991 (SPV).

2. Definitions

The multiple types of cylinders, equipment and systems which are covered by the PER, CDG and SPV regulations are defined below:

- Pressure Equipment vessels, piping, safety accessories and pressure accessories, which
 includes elements attached to pressurized parts such as flanges, nozzles, couplings,
 supports lifting lugs etc.
 - Vessels housing designed and built to contain fluids under pressure, this may be composed of multiple chambers (e.g. Hot-water boiler)
 - Piping components intended for the transport of fluids or gases when connected for integration into or part of a pressure system.
 - Safety accessories devices designed to protect pressure equipment against the allowable limits being exceeded (e.g. gauges, safety valves)
 - Pressure accessories devices with operational function and having pressurebearing housings (e.g. hydraulics)
 - Assemblies several pieces of pressure equipment assembled by a manufacturer to constitute an integrated and functional whole.
- Pressure System any system comprising of one or more pressure vessels of rigid construction, their associated pipe-work and protective devices. It also includes the protective devices to which a transportable pressure receptacle is, or is intended to be, connected.
- Simple Pressure Vessels constructed of welded non-alloy steel or non-alloy aluminium or non-age hardening aluminium alloy, intended to contain air or nitrogen (incl. nitrogen blends), with a gauge pressure greater than 0.5 bar and a maximum working pressure lower than 30 bar. SPV's are not for intended exposure to flame, must hold less than 10,000 bar.litres, and be stored between -50 and 100 degrees Celsius.

PSSR aims to prevent serious injury from the hazard of stored energy as a result of failure of a pressure system or one of its component parts. Prior to use any qualifying pressure system (new or otherwise) a written scheme of examination must be in place, and an examination of the system undertaken.

3. Employer Responsibilities

RHSU will assess the requirement for pressurized equipment and systems in the work place. Where pressurized equipment or systems are in use RHSU must appoint a recognised competent person to oversee their operation and management.

The competent person should be independent from the operating functions of the organisation, and they must have sufficient authority to stop the use of the equipment or system should the need arise.

RHUL Estates are the appointed competent person for all pressure equipment and systems integral to the buildings and facilities at Royal Holloway (Heating systems, Elevators etc). Where equipment or systems have been installed or provided by 3rd party providers they retain responsibility to act as the competent person over the lifetime of the install.

The roles and responsibilities for the competent person are summarised as follows:

- i. Conduct or arrange for contracted competent agent to conduct examinations
- Review the written scheme of examination and confirm it is suitable
- Produce a written report for each examination
- Notify the user /owner of repairs required
- Identify action in case of imminent danger
- Agree postponements of examination, where appropriate
- ii. Draw up or certify written schemes of examination

Where a static system is required this will be installed by a recognised and competent supplier, and operated in accordance with the duties for employers under PSSR. The Regulations (PSSR Schedule 2) allows a supplier of an installed system to assume responsibility in writing for the written scheme of examination, the operation, the maintenance and the record keeping. The employer is duty bound to ensure copies of these records are available on site, and written agreement is in place for the safety management of such system.

Where a mobile system is required this will be operated and maintained by a competent person, and managed in accordance with the duties for competent persons under PSSR.

To achieve compliance with the Regulations, day-to-day responsibility is devolved to Heads of Departments and respective line managers. It is their responsibility to ensure the safe use of pressure equipment or systems, ensuring that sufficient training is provided to equip them to undertake their designated tasks with minimum exposure to risk.

Some equipment is subject to other health and safety legislation, lifting equipment must meet the requirements of LOLER (Manual Handling Policy & Procedure), work equipment must meet the requirements of PUWER and personal protective equipment must meet the PPE Regulations (Personal Protective Equipment Policy).

4. Line Management Responsibilities

Heads of Departments and respective line managers must incorporate the following good practice principles into their departmental procedures:

- i. Routine periodic checks of equipment to ensure they are safe and suitable for the task
- ii. Ensure risk assessment has been completed which takes account of the working conditions and health and safety risks in the workplace.
- iii. Ensure pressure equipment is maintained in an efficient state, in efficient working order and in good repair; and where equipment has a maintenance log, keep up to date and review annually.
- iv. Ensure that all persons using, supervising or managing the use of work equipment are provided with adequate information and training, records maintained.
- v. Liaise with competent persons to enable written schedule of examinations to be completed

5. Employees' Responsibilities

All employees have a duty to take reasonable steps to ensure that they do not place themselves or others at risk of harm. They are also expected to co-operate fully in complying with any procedures that may be introduced as a measure to protect the safety and well-being of our staff and visitors.

It is the responsibility of all employees:

- i. to be aware of the potential risks in the area where they are working
- ii. to comply with instruction and follow safe working practices at all times
- iii. to only use pressure equipment once appropriate training has been provided
- iv. to ensure that PPE provided is used
- v. to ensure guarding mechanisms are used in accordance with instruction and appropriate risk assessments
- vi. to complete a visual safety check of all pressure equipment prior to use

6. Training

Managers must ensure that everyone involved in the use or operation of pressure equipment is competent to do so, having received suitable and sufficient information, instruction and training and while being trained, is supervised by a competent person.

7. Monitoring, Reporting and Record Keeping

Line Managers must ensure that records of all maintenance, testing and examination of pressure equipment and systems are kept, including the date and action taken.

Line Managers must ensure that records are maintained for all training, with copies held at departmental level and centrally with HR.

The implementation of this Policy will be monitored at departmental level with any accidents, incidents or near misses being recorded and reported centrally.