Pressure Systems Procedure

Introduction

A pressure system is a closed system which holds steam at any pressure, any fluid or fluid mixture at greater pressure than 0.5 bar above atmospheric pressure or a gas dissolved under pressure in a solvent.

Pressure systems can range from steam-generating commercial coffee machines to large boilers. Examples of pressure systems and equipment are:

- boilers and steam heating systems
- pressurised process plant and piping
- compressed air systems (fixed and portable)
- pressure cookers, autoclaves and retorts
- heat exchangers and refrigeration plant
- valves, steam traps and filters
- pipework and hoses
- pressure gauges and level indicator

Regulations

The use of pressure systems and equipment at work are covered by the Pressure Systems Safety Regulations 2000 (PSSR)[2].

The regulations ensure that the University and SEF appropriately maintain pressure systems to prevent serious injury or damage to property resulting from stored energy being released from a failed pressure system or component.

The majority of incidents involving pressure systems are due to:

- poor equipment and/or system design
- improper installation
- inadequate maintenance of equipment
- inadequate repairs or improper modifications
- unsafe systems of work or procedures
- operator error (e.g. poor training or a lack of supervision)

https://www.hse.gov.uk/pressure-systems/about.htm

Inspection Frequency

A written scheme of examination must be created either by the manufacturer; or insurance inspector and a thorough examination undertaken before the pressure equipment is used. https://www.hse.gov.uk/pressure-systems/

[1] HSE PSSR Regulations https://www.hse.gov.uk/pubns/indg261.pdf

Pressure systems should be thoroughly inspected every 12 months, or as guided by our insurers. They should be re-inspected and tested following repairs and modification of the system.

If a pressure system has not been inspected within this timescale, Schools/ Divisions should make contact with the Insurance Manager to ensure the equipment is on Zurich's schedule. The following information should be included;

- Location (Falmer campus address)
- Schedule
- Situation
- Serial No
- ES Item No
- Equipment Type

Procedure for Inspection of Pressure Systems

Before Engineers Visit

Zurich Engineer must notify the University before attending site for an inspection by emailing the SEF Health and Safety Team on healthsafety@sef.fm and the Service Centre service.centre@sef.fm. SEF will notify the University primary contact for the area of the planned visit.
For installed pressure systems, SEF will be the primary contact.

The School or Division owner of the equipment must prepare the system dependent on the inspectors pre-instruction, and ensure it is made available before the insurance engineer's visit.

The system preparation will vary between systems and between inspections. There will be occasions where the system will need to be depressurised and opened up (often requiring a third party contractor), or occasions where it needs to be pressurised. Due to this variability, it is crucial this forms part of the plans for work before the inspector comes to site.

The primary contact will need to notify the equipment users of the visit and may need to take the entire area out of action for the duration of the visit.

During Engineers visit

The primary University contact should notify the SEF Service Centre of the visit. The Zurich Engineer should arrive at Hastings building reception, and sign out from the reception at the end of their visit.

The University host should arrange to meet with the inspection engineer on arrival and accompany them to the area to ensure full access is provided. They should ensure the engineer has the appropriate contact number if they need to leave the inspection.

[1] HSE PSSR Regulations https://www.hse.gov.uk/pubns/indg261.pdf

The host should arrange to meet with the inspection engineer following the inspection to discuss any issues identified.

Result of inspection
If no issues or a minor issue only is identified, the inspection engineer should notify the host at the time of the visit and update the Crimson database. The resulting certificate should be issued to the primary University contact.

If a serious issue has been identified following an inspection and the equipment should be taken out of service, the inspection engineer should notify the primary contact immediately and update the Crimson database.

The primary contact should take steps to clearly signpost that the equipment has been taken out of service and notify end users to prevent its use. They should take steps to both decommission the item and remove from site/ Crimson, or repair of the equipment.

If the inspection engineer has been unable to access a pressure system on their schedule, they should inform the primary contact for their site visit who will either make the item available or coordinate a return visit.

Introduction of equipment to Crimson
When a new pressure system is introduced to site the Insurance Manager and the Health and Safety Team must be notified via email.

The Insurance Manager will contact Zurich to add the equipment to Crimson, and require the following information:

- Location (Falmer campus)
- Situation (building and room)
- Serial No
- ES Item No
- Equipment Type

Removing equipment from Crimson
When a pressure system is decommissioned and removed from site, the Insurance Manager must be notified via email.

The Insurance Manager will contact Zurich to remove the equipment from Crimson, and require the following information from the Crimson report:

- Location (Falmer campus address)
- Schedule
- Situation
- Serial No
- ES Item No
- Equipment Type

[1] HSE PSSR Regulations https://www.hse.gov.uk/pubns/indg261.pdf

Stakeholder Responsibility

Stakeholder	Responsibility
SEF	• Control some mobile equipment and all installed equipment. • Usual lead contact for contractors
EFM	• SEF contract management • Lead on wider impacts, e.g. Energy Centre disruption.
Schools and Directorates • Life Sci • MPS • BSMS • E&I • Chartwells	• Own equipment • Disrupted by equipment inspection and a resulting failure.
Insurance Manager	• Manages Zurich contract
Health and Safety	• Guidance on PSSR

[1] HSE PSSR Regulations https://www.hse.gov.uk/pubns/indg261.pdf