

## Policy for Safe Operation and Working on Pressure Systems (Excludes MGPS)

<b>Department / Service:</b>	Estates
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<b>Accountable Director:</b>	James Longmore – Asset Management & ICT
<b>Approved by:</b>	Ray Cochrane - Head of Estates
<b>Date of approval:</b>	29 <sup>th</sup> November 2017
<b>Review date:</b> <b>This is the most current document and should be used until a revised version is in place</b>	1 <sup>st</sup> February 2021
<b>Target Organisation(s):</b>	Worcestershire Acute Hospitals NHS Trust
<b>Target Departments:</b>	Trust Snr Mgmt, Estates and Facilities
<b>Target staff categories:</b>	Managers, Technicians, Contractors, Agency Staff

### Policy Overview:

This Policy will outline how the Trust Manage, Operate and Work on Pressure Systems affecting visitors, contractors, agency staff and WAHT staff in accordance with the requirements of The Pressure Systems Safety Regulations 2000.

### Latest Amendments to this policy:

Policy Approved – Version 1  
23<sup>rd</sup> January 2020 – Document extended for 6 months whilst review takes place with new Director of Facilities and Estates

August 2020 – Document extended for 6 month during COVID period – Approved by QGC/Gold Meeting

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## 1. Purpose

1.1 The purpose of this policy is to outline the steps to be taken by Worcester Acute Hospital Trust to ensure that staff, contractors and others do not work or operate Pressure Systems unless trained, experienced, familiar, competent and appointed to do so.

## 2.0 Introduction

2.1 A pressure system is as detailed within The Pressure Systems Safety Regulations 2000.

Pressure systems are defined as:

- a system comprising one or more pressure vessels of rigid construction, any associated pipework and protective devices
- the pipework with its protective devices to which a transportable pressure receptacle is, or is intended to be, connected
- a pipeline and its protective devices
- and for the purpose of this Policy to any LTHW system where there is an increased risk of stored energy due to volume, pressure and or temperature, as defined by the AE PS.

A relevant fluid is:

- steam at any pressure
- any fluid or mixture of fluids which is at a pressure >0.5 bar above atmospheric
- a gas dissolved under pressure in a solvent (acetylene)

Relevant fluids do not include hydraulic oils. Hydraulic systems, while using high pressures, do not store energy in the system and so are not covered by this legislation.

2.2 The adopted Safety Rules and Procedures will control the risks within a differing range of systems, which fall into the category of Pressure Systems due to the risk of a stored energy being present. A wide range of tasks are possible from a visual inspection through to repair requiring the use of hot working methods etc. The essential criteria, which are used to identify if the work requires to be controlled by permit are the risks of:

- Uncontrolled release of stored energy
- Scalding / Burns Fire or explosion, Asphyxiation
- Poisoning
- Contamination of environment

## 3. Scope

3.1 This policy is applicable to all Trust staff, contractors and agency staff working within the WAHT. Persons responsible for developing Pressure Systems related guidance or procedures must ensure that it complies with this policy.

## 4. Responsibilities

4.1 The Chief Executive will ensure that a Designated Person (DP) is appointed to ensure that this Policy and a suitable Safe System of Work is in place to control all work and operation of Pressure Systems.

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Ensuring that all staff involved are aware of this policy, understand its content and comply with local procedures and the adopted Safe Systems of Work;

4.2 The Head of Estates will assume the role of DP and ensure a Safe System of Work is adopted, that adequate resources are available and suitably trained and experienced staff are appointed to manage, administer and implement the Safe System of Work.

The Designated Person will appoint an Authorising Engineer (Pressure Systems) to implement, administer, monitor and audit the adoption of the Safe System Work (SSoW) and ensure that a competent manager is responsible for boilers.

4.3 Principal Engineer / Statutory Standards Manager will ensure that the adopted Safe System of Work is fully implemented and ensure that adequate competent resource is available for training, familiarisation and appointment as Authorised Persons (Pressure Systems). That all systems where required are regularly inspected by a Competent Person and operated and maintained in a safe condition.

#### 4.4 Authorising Engineer (Pressure Systems) AEPS

The Authorising Engineer (Pressure Systems) is to be a suitably qualified, trained Engineer with relevant experience in Pressure Systems and Safe Systems of Work.

The Authorising Engineer (Pressure Systems) is required to demonstrate to the satisfaction of the Head of Estates the following:

- Knowledge and familiarity with the types of the Pressure Systems incorporated within their area of responsibility.
- A full and thorough understanding of these Safety Rules and Procedures and any local variations within their area of responsibility.
- A general understanding of all relevant current legislation in particular the Pressure Systems Safety Regulations 2000

#### Role

The role of the Authorising Engineer (Pressure Systems) is to implement, administer, monitor and audit the adopted Safety Rules and Procedures.

Duties - Include but are not restricted to:

- Making recommendations to update any proposed changes and to the adopted Safety Rules and Procedures to cover current work activities.
- Ensure that Safety, Technical and Environmental Directives, Alerts and Bulletins relating to Pressure Systems are issued as appropriate.
- Formulate and issuing any Operational Restrictions.
- Provide recommendations to ensure sufficient Authorised Persons (Pressure Systems) are appointed.
- Ensure a separate file is maintained on each Authorised Persons (Pressure Systems) detailing, locations and areas of responsibility, appointment dates, and qualifications, training certificates, refresher training, experience and general correspondence.
- Carry out regular audits of the management and control procedures for the Authorising Engineer (Pressure Systems).

- Provide technical assistance and guidance on matters relating to the application of these Safety Rules and Procedures.

## 4.5 Authorised Person Pressure Systems (AP PS)

The Authorised Person (PS) is to be of a mature character, suitably qualified, trained and have relevant previous experience in Pressure Systems and Safe Systems of Work.

Prior to assessment by the Authorising Engineer (PS), the proposed Authorised Person (PS) is to have achieved the necessary standard of training in line with Trust approved training courses.

When suitably trained and prior to final appointment, the Authorised Person (Pressure Systems) is required to demonstrate to the satisfaction of the Authorising Engineer (Pressure Systems) the following:

- Knowledge and site familiarity of the Pressure Systems incorporated within their area of responsibility. The location and layout of the Pressure Systems, keys and arrangements for obtaining access to them.
- The location and use of all appropriate safety equipment and safety signs and arrangements for obtaining access to them. A full and thorough understanding of these Safety Rules and Procedures and any local variations within their area of responsibility.
- A general understanding of all relevant current legislation in particular the Pressure System Safety Regulations 2000 and INDG436 Safe management of industrial steam and hot water boilers.
- Ensure there are clear and accurate written instructions for safe operation of boilers and other plant and equipment installed.

On completion of training and assessment the Authorised Person (Pressure Systems) will be appointed identifying the level of Pressure System control the individual has been given.

### Role

The Role of the Authorised Person (Pressure Systems) is to oversee and authorise all Pressure Systems work activity that takes place in accordance with the adopted Safety Rules and Procedures.

The Duty Authorised Person (Pressure Systems) is to issue all Safety Documents for the control of work in a specified Pressure System.

## 4.6 Skilled Persons

Skilled Person (Pressure Systems) is an employee with suitable and sufficient experience and training, who has been assessed and appointed by an Authorised Person (Pressure Systems) for work on systems at the specific site.

The Skilled Person (Pressure Systems) is required to have achieved the necessary standard and must have the necessary technical knowledge, experience, and skills to enable all work on pressure systems to be undertaken safely and in such a manner, so as to minimise any risk to the lowest level possible.

Duties include but not restricted to,

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- Ensure that all necessary safety equipment is available, suitable and safe for use, and in good working order. Ensure that adequate first aid and emergency arrangements are in place before commencing the work.
- Report to the Authorised Person (Pressure Systems) any accident, dangerous occurrence, defects found or incidents occurring during the work.
- Ensure that only the work carried out is that for which written instruction has been received

## 4.7 Plant Operator(Steam)

Plant Operator (Steam Systems) is an employee with suitable and sufficient experience and training, who has been assessed and appointed by an Authorised Person (Pressure Systems) for monitoring and operating Steam systems at the specific site.

The Plant Operator (Steam Systems) is required to have achieved the necessary standard and must have the necessary technical knowledge, experience, and skills to enable safe operation of steam systems in such a manner, to minimise any risk to the lowest level possible.

Duties include but not restricted to,

- To observe, monitor and record where required combustion readings, ensuring efficient combustion of boiler plant
- Ensure all water level controls and alarms are fully functional
- To check and record where required water treatment and water quality
- To check and ensure steam systems are operated in a safe manner
- Report to the Authorised Person (Pressure Systems) any accident, dangerous occurrence, defects found or incidents occurring during the work.

## 5. Management arrangements

5.1 The AP PS will set up a Document Cabinet for the documents that support the management arrangements for Pressure Systems.

These documents will include the following:

- Working pads, completed pads and stocks of: - Safety Programmes - Permits to Work -  
Standing Instructions - Pressure Systems Operating Records
- The Pressure Systems Document Register
- Details of the Risk Categorisation of the Systems and any additional systems required to be managed under these Safety Rules and Procedures
- Copies of all risk assessments
- Folders of photocopies, or carbon duplicates and cancelled originals of Safety Programmes

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- Folders of cancelled originals of Permits to Work
- Copies of Skilled Persons' appointment certificates together with the documentation which was used to support the appointment
- Copies of AE's Audit Reports
- Register of AEs, CAP and APs appointed for the Site

The Document Cabinet is to be a lockable drawer, cabinet or series of cabinets which is to be kept locked when unattended. Access is to be under the control of the APs.

## 6. Monitoring

6.1 The monitoring of this policy will be via the Designated Person together with the effectiveness of the adopted SSoW via the AECS Audits.

6.2 The Principal Engineer / Statutory Standards Manager will ensure that any Audit actions are closed within the agreed timeframe and that adequate resource will be made available to ensure a satisfactory conclusion. Any shortfalls will be reported to the Head of Estates.

Aspect of compliance or effectiveness being monitored	Monitoring method	Individual responsible for the monitoring	Frequency of the monitoring activity	Individual responsible for ensuring that the actions are completed
Implementation of this Policy	Audit	Head of Estates	Annually	Director Accountable
Pressure Systems Document Centre	Audit	Authorising Engineer Pressure Systems	Annually	Head of Estates
Audit Actions	Audit	Principal Engineer & Statutory Standards Manager	Annually	Head of Estates

## 7. Training

Training is one of the key elements of competence of an individual to undertake a specific task. The level of training will depend on the role to be undertaken and the prior knowledge and qualifications of the individual.

The training course content will be subject to review and / or comment by the appointed Authorising Engineer (Pressure Systems) and may be adjusted where appropriate to meet the requirements / needs of WAHT installed systems.

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Authorising Engineer Pressure Systems	Must achieve the same technical training standards as for an Authorised Person PS.
Authorised Person Pressure Systems	<p>The Pressure Systems Course will cover:</p> <ul style="list-style-type: none"> <li>• Review of system definitions and properties</li> <li>• An overview of associated Statutory Regulations &amp; Pressure Systems Safety Regulations (PSSR)</li> <li>• Introduction to Sample NHS Foundation Trust Pressure System Safety Rules and Procedures</li> <li>• Scope of the Pressure System Safety Rules and Procedures</li> <li>• Specific roles and responsibilities of appointed personnel with respect to Pressure System Safety Rules and Procedures</li> <li>• System Categorisation and Demarcation Agreements</li> <li>• Risk Assessment</li> <li>• Isolation Methodology and HSG 253 'Safe Isolation of Plant and equipment'</li> <li>• Management, application and control of Pressure System Safety Rules and Procedures Documentation</li> <li>• Audit and Monitoring</li> </ul>
Skilled Persons	Skilled Persons (Pressure Systems) are required to have successfully undertaken technical training as determined by the AP to meet the needs of his site and the task.
Plant Operator (Steam systems) Boiler Operators Accredited Scheme (BOAS)	<p>Covering the fundamentals of steam to the components used in steam systems and the steam/condensate cycle. The practical applications of safe and efficient boiler operation are also addressed. (1-day Steam Awareness)</p> <p>Expanding on Steam Awareness, the course also covers the fundamentals of combustion, combustion control plus boiler level and blowdown controls.</p> <p>A basic introduction to water treatment and best practice relating to safety management of steam and hot water boilers, as detailed by HSE guidelines INDG436 and the CEA guide BG01.</p>

## 8. Communication & Implementation

8.1 The policy will be made available on the Trust's intranet and website by the Head of Estates who will be responsible for issuing copies to senior operational managers for them to disseminate their departments.

8.2 The Principal Engineer / Statutory Standards Manager will be responsible for ensuring all Estate staff and Contractors read and fully understand the policy and that it is read in conjunction with the Control of Contractors Policy.



8.3 The Estates Officers will be responsible for ensuring all staff and contractors under their supervision read and fully understand the policy and that it is read in conjunction with the Control of Contractors Policy.

## 9. Equality & Diversity

9.1 The Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.

		Yes/ No	Comments
<b>1.</b>	<b>Does the Policy/guidance affect one group less or more favourably than another on the basis of:</b>		
	Race	No	
	Ethnic origins (including gypsies and travellers)	No	
	Nationality	No	
	Gender	No	
	Culture	No	
	Religion or belief	No	
	Sexual orientation including lesbian, gay and bisexual people	No	
	Age	No	
<b>2.</b>	<b>Is there any evidence that some groups are affected differently?</b>	No	
<b>3.</b>	<b>If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?</b>	N/A	
<b>4.</b>	<b>Is the impact of the Policy/guidance likely to be negative?</b>	N/A	
<b>5.</b>	<b>If so can the impact be avoided?</b>	N/A	
<b>6.</b>	<b>What alternatives are there to achieving the Policy/guidance without the impact?</b>	N/A	
<b>7.</b>	<b>Can we reduce the impact by taking different action?</b>	N/A	
<p>If you have identified a potential discriminatory impact of this key document, please refer it to Assistant Manager of Human Resources, together with any suggestions as to the action. Required to avoid/reduce this impact. For advice in respect of answering the above questions, please contact Assistant Manager of Human Resources.</p>			



## 10. References

- Pressure Systems Safety Regulations 2000
- Health & Safety at Work Act etc 1974
- Management of Health and Safety at Work Regulations 1999
- General and specific legislation relevant to the health and safety hazards associated Pressure Systems
- HSE guidelines INDG436 Safe management of industrial steam and hot water boilers.