

# HEALTH AND SAFETY

## SAFETY POLICY & ARRANGEMENTS



**Date:**           **October 2023**

**Issue:**           **No. 2**

**Subject:**       **Safety of Pressure Systems**

### Introduction

**This document forms part of the National Ice Centre's organisational written safety policy arrangements.**

Departments, services or teams may consider it appropriate to develop additional guidance and systems of work on specific work related activities.

Where proposals, additional guidance or changes to systems of work will have an impact on health, safety and welfare, this will be discussed and agreed at the Health & Safety Committee.

If you have any questions or require further information or support on the contents of this document, please contact The NIC Health & Safety Advisor or Corporate Safety Advice.

### Overview Of Management & Colleague Responsibilities

#### Manager Responsibilities

Below is an overview of the responsibilities which is intended to support managers in identifying their key duties that need to be taken to comply with the requirements of this document and the safety management systems of the National Ice Centre.

- Managers need to ensure that all equipment that is covered by the legislation is inspected and maintained to the required standards
- The manager must understand what the 'Safe Operating Limits' of the equipment is and that this information is communicated to all users of that pressure system.
- The manager must ensure that all users of the pressure system are aware of the operating condition of the equipment (ie does it operate by gas, steam, liquid).
- Managers must ensure that prior to any use of the pressure system, it has been examined by a competent engineer and a written scheme of inspection is in place.
- Managers must ensure the equipment has not been modified in any way without being re-inspected by a competent engineer and a formal certificate covering that modification has been provided.

#### Employee Responsibilities

The Health & Safety at Work Act 1974 section 7 requires all employees to consider their own health & safety and the safety of others.

As an employee of the National Ice Centre, if you have concerns in relation to health & safety that is likely to cause you or someone else, injury or ill health then you must ensure that the concern is communicated to your manager immediately.

You are also required to co-operate with the management of the National Ice Centre to ensure compliance with the health & safety arrangements, policies and procedures and work to the requirements identified within this document.

## Legislation Relating To Pressure Systems & Equipment

There are 2 principal legislative requirements that detail the safety requirements for pressure equipment or systems in the workplace.

The Pressure Equipment Regulations 1999 and Pressure Systems Safety Regulations 2000 are both in place to minimise the potential for accidents to occur which are caused by a failure of pressure systems.

The failure of such systems has been known to kill, cause serious injuries and damage property.

The primary causes of incidents are:

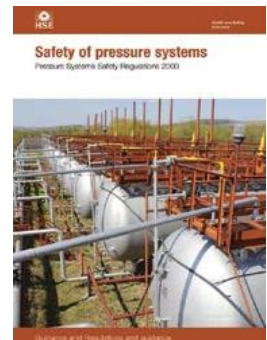
- Poor equipment and/or system design
- Poor maintenance of equipment
- Unsafe method of work
- Operator error including poor training / supervision
- Poor installation
- Inadequate repair or modification

The main hazards associated with failure include:

- Impact from the blast of an explosion or release of compressed gas or liquid
- Impact from parts of equipment that fail or flying debris
- Contact with released liquid such as gas or steam
- Fire resulting from the escape of flammable gases

In general terms these regulations will require the manager to:

- Provide safe and suitable equipment
- Know the operating condition
- Fit suitable protective devices and ensure they function properly
- Carry out suitable maintenance
- Make provision for appropriate training
- Have the equipment examined
- Choose a competent person



## Equipment Covered By The Regulations

Managers need to be aware of the types of equipment that are covered by this legislation and will require a formal inspection scheme to be in place before its commission or use..

Examples of pressure systems and equipment include:

- 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;
- pipe work and hoses; and
- pressure gauges and level indicators.

## Written Inspection Schemes

Prior to any pressure system or equipment being utilised, a formalised inspection regime must be implemented.

Managers must ensure that this inspection regime that formally identifies the safe operating limits of the equipment and what must be examined at the commissioning stage of the installation is in place.

This regime will also formally identify the equipment and what parts must be inspected within that equipment.

The identification of the nature of the examination that will maintain safety arrangements will need to be in place.

There will also be a clear indication of the inspection interval required (under normal operating conditions, this inspection interval is not likely to be more than 12 months)

A formal certificate will be provided showing the date of the inspection, the person that carried out the inspection and the qualification of that engineer.

## **Organising An Inspection Scheme**

A central contract for the inspection of pressure systems and equipment is in place within the National Ice Centre.

As a manager, if you are in control of an environment where an inspection scheme is required, you must be able to demonstrate that the required inspections are taking place.

Managers can ensure this is in place by ensuring that they are in possession of a current inspection certificate which must also include the written scheme and will provide additional information on any inspection interval and actions that may be required.

If there are any concerns regarding equipment that is not being inspected or where there is reason to suspect that the inspection regime does not cover all pressure systems or a current inspection certificate is required, the manager must make contact with the building's management before that equipment is used.

## **References & Further Information**

### **NIC Documentation**

- Policy for Statutory Testing and Inspections of Fixed Installations

### **External References**

- L122 - Safety of Pressure Systems (HSE)
- INDG 261 – Pressure Systems – a Brief Guide (HSE)
- INDG 178 - Written Schemes of Examination (HSE)
- INDG 308 – Safe Use of Gas Cylinders (HSE)