

**Scottish Health Technical Memorandum
08-07
Confined Spaces policies, procedures
and guidance**

Contents

	<i>Page</i>
Preface	5
Acknowledgements	8
1. Introduction	9
1.1 General.....	9
1.4 Aims and purpose of these procedures	9
1.5 Scope	9
1.6 Policy.....	9
1.7 Definitions of roles and responsibilities	10
2. General arrangements	11
2.1 General.....	11
2.2 Definitions.....	11
3. Management arrangements.....	13
3.1 Confined spaces document centre	13
3.3 Confined space document register	13
3.5 Confined spaces schedule	14
3.9 Confined spaces operations record	14
3.11 Equipment register	14
3.13 Keys and security	15
3.21 Management of remote sites	16
3.23 Urgent or Unexpected Access to Confined Spaces.....	17
3.24 Safety signs.....	17
4. Management structure for safe systems of work	18
4.1 General.....	18
4.2 Management of untrained personnel.....	18
4.5 Authorising Engineer or Designated Person (Confined Spaces)	18
4.11 Authorised Person (Confined Spaces) – criteria.....	19
4.15 Authorised Person (Confined Spaces) – role	20
4.17 Authorised Person (Confined Spaces) – duties.....	20
4.18. Competent Person (Confined Spaces)	21
4.21 Assessment of competency.....	22
4.22 Persons in Charge (Confined Spaces) - criteria	22
4.26 Persons in Charge (Confined Spaces) – role	23
4.29 Persons in Charge (Confined Spaces) – duties.....	23

4.30	Safety Attendant (Confined Spaces) - criteria	24
4.31	Safety Attendant (Confined Spaces) – role	24
4.35	Safety Attendant (Confined Spaces) – duties	25
4.36	Work Team (Confined Spaces) - criteria	25
4.37	Work Team (Confined Spaces) – role	25
4.40	Work Team (Confined Spaces) – duties	26
5.	Confined Space entry procedures	27
5.1	General	27
5.2	Risk assessment	27
5.8	Determining the level of control	27
5.10	Standing Instructions	28
5.11	Procedure for entry under a Standing Instruction	28
5.15	Safe System of Work	30
5.21	Permit-to-Work (Confined Spaces)	32
5.27	Procedure for entry under a Permit-to-Work (Confined Spaces)	32
5.31	Issue of Permit-to-Work (Confined Spaces)	33
5.36	Receipt of Permit-to-Work (Confined Spaces)	34
5.41	Closure of Permit-to-Work (Confined Spaces)	34
5.42	Cancellation of Permit-to-Work (Confined Spaces) and filing of records	35
6.	Training	39
6.1	Introduction	39
7.	Audits, monitoring and inspections	43
7.1	General	43
7.4	Monitoring	43
7.5	Auditing	43
7.6	Audit Reports and Action Plans	43
7.7	Monitoring by the Authorising Engineer or Designated Person (Confined Spaces)	44
7.9	Monitoring by the Authorised Person (Confined Spaces)	44
7.10	Review by the Authorising Engineer (where appointed)	44
8.	Medical requirements	45
8.1	General	45
8.3	Bacterial and viral infection	45
8.6	Medical examinations and medical surveillance	46
Appendix 1: Model Forms		47
Further reading		67

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Preface

About Scottish Health Technical Memoranda

Engineering Scottish Health Technical Memoranda (SHTMs) give comprehensive advice and guidance on the design, installation and operation of specialised building and engineering technology used in the delivery of healthcare.

The focus of Scottish Health Technical Memorandum guidance remains on healthcare-specific elements of standards, policies and up-to-date established best practice. They are applicable to new and existing sites, and are for use at various stages during the whole building lifecycle.

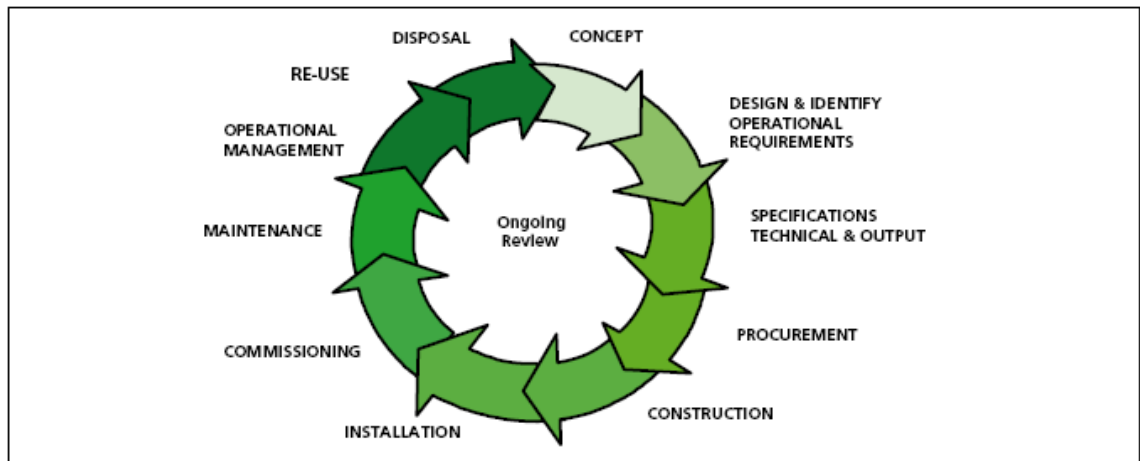
Healthcare providers have a duty of care to ensure that appropriate engineering governance arrangements are in place and are managed effectively. The Engineering Scottish Health Technical Memorandum series provides best practice engineering standards and policy to enable management of this duty of care.

It is not the intention within this suite of documents to repeat unnecessarily international or European standards, industry standards or UK Government legislation. Where appropriate, these will be referenced.

Healthcare-specific technical engineering guidance is a vital tool in the safe and efficient operation of healthcare facilities. Scottish Health Technical Memorandum guidance is the main source of specific healthcare-related guidance for estates and facilities professionals.

The core suite of eight subject areas provides access to guidance which:

- is more streamlined and accessible;
- encapsulates the latest standards and best practice in healthcare engineering;
- provides a structured reference for healthcare engineering.



Healthcare building lifecycle

Structure of the Scottish Health Technical Memorandum suite

The series of engineering-specific guidance contains a suite of eight core subjects:

Scottish Health Technical Memorandum 00: Policies and principles (applicable to all Scottish Health Technical Memoranda in this series).

Scottish Health Technical Memorandum 01: Decontamination.

Scottish Health Technical Memorandum 02: Medical gases.

Scottish Health Technical Memorandum 03: Heating and ventilation systems.

Scottish Health Technical Memorandum 04: Water systems.

Scottish Health Technical Memorandum 05: Reserved for future use.

Scottish Health Technical Memorandum 06: Electrical services.

Scottish Health Technical Memorandum 07: Environment and sustainability.

Scottish Health Technical Memorandum 08: Specialist services.

Some subject areas may be further developed into topics shown as -01, -02 etc and further referenced into Parts A, B etc.

Example: Scottish Health Technical Memorandum 06-02 Part A will represent: Electrical Services – Electrical safety guidance for low voltage systems.

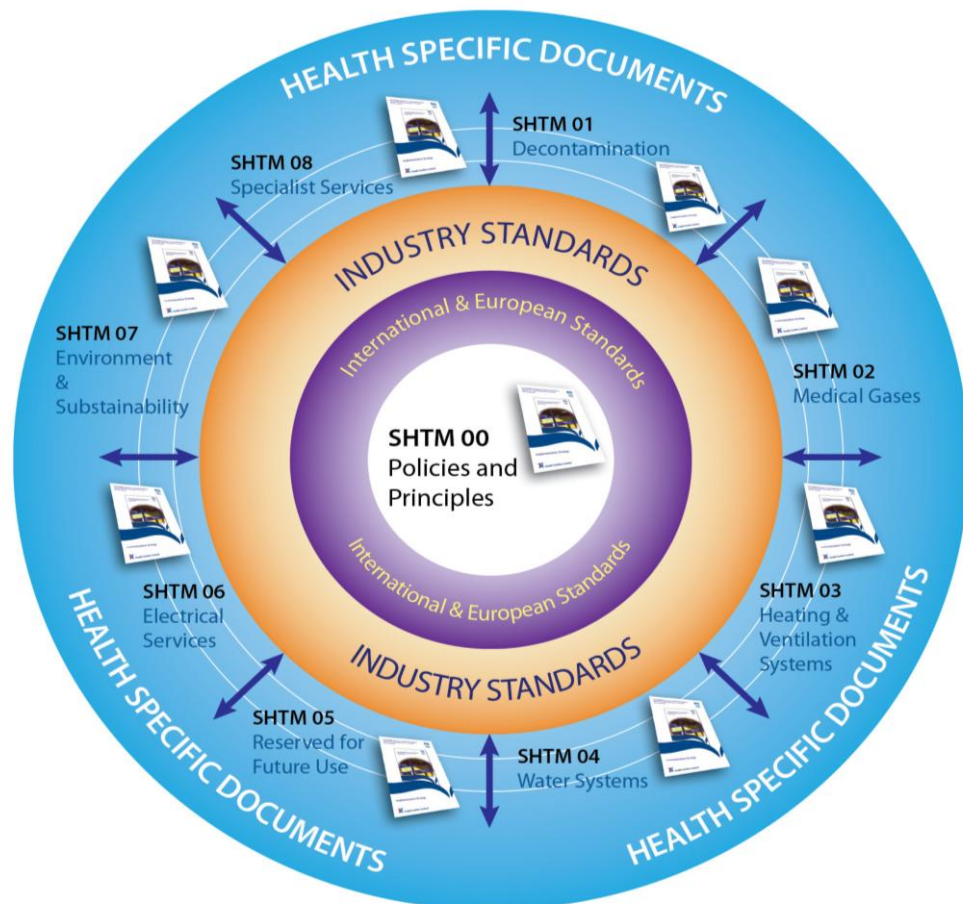
In a similar way Scottish Health Technical Memorandum 07-02 will simply represent:

Environment and Sustainability – EnCO₂de.

All Scottish Health Technical Memoranda are supported by the initial document Scottish Health Technical Memorandum 00 which embraces the management

and operational policies from previous documents and explores risk management issues.

Some variation in style and structure is reflected by the topic and approach of the different review working groups.



Engineering guidance

Acknowledgements

This guidance originated as a standalone policy and procedures publication produced in 2012 with the cooperation and assistance of a short term advisory group. This comprised representatives from various NHS Boards with expertise on health and safety issues. Their input is gratefully acknowledged. It was later agreed that the guidance should be incorporated into the Scottish Health Technical Memoranda series as SHTM 08-07.

1. Introduction

General

- 1.1 Each year approximately 15 people in the UK are killed and many injured whilst working in confined spaces. This includes those people who were at work and those who attempted to rescue them without proper training and equipment.
- 1.2 Work in confined spaces is governed by statutory legislation, principally the Confined Spaces Regulations (hereinafter referred to as “the Regulations”) which:
- prohibit entry into a confined space to carry out activities unless there is no other reasonably practical alternative means of doing so;
 - require any activities within confined spaces to be undertaken in accordance with a safe system of work;
 - require adequate arrangements to be in place to rescue any person in an emergency situation.
- 1.3 The procedures set out in this guidance are intended to allow Authorising Engineers to fulfil the requirement of Regulation 4(2) of the Regulations to operate under a safe system of work and should be read in conjunction with the Approved Code of Practice (ACOP L101) that provides guidance as to how compliance with the Regulations may be achieved.

Aims and purpose of these procedures

- 1.4 To provide a safe system for
- controlling work in confined spaces;
 - minimising associated risks;
 - appointing competent persons to manage, oversee and perform any such work;
 - preparing associated documentation.

Scope

- 1.5 This policy applies to all staff within NHS Scotland.

Policy

- 1.6 The procedures set out are mandatory and apply to all persons working on design, construction, installation, operation, maintenance and decommissioning of all facilities containing confined spaces. The Authorised Person (Confined Spaces) shall cooperate as necessary with other parties (including the Authorising Engineer (Confined Spaces) to prevent danger. The Authorising Engineer (Confined Spaces) shall advise and draw up formal demarcation

agreements and liaise with all parties involved. Where there is significant risk, all parties require to liaise with the appropriate Authorised Person to ensure that, prior to commencement of work, there is an agreed written procedure and documentation in place for the work involved.

Definitions of roles and responsibilities

Note: Section 4 gives further guidance with expanded descriptions of these roles and responsibilities.

1.7 Key individuals will be appointed, as mandated by these Procedures to have specific responsibilities for the management and/or carrying out of work in confined spaces as summarised below:

- the **Authorising Engineer (Confined Spaces)** – where appointed - may be independent of the NHS Board with responsibility for assessing competency of Authorised Persons (Confined Spaces) and appointed to implement, administer, audit and monitor the application of these Procedures;

Note: Alternatively, there is the option to nominate the Estates Manager as '**Designated Person (Confined Spaces)**' with the same responsibilities as, and to fulfil the role of, an Authorising Engineer (Confined Spaces).

- the **Authorised Person (Confined Spaces)** will be appointed from the estates department to give authority to the Person in Charge or Work Team to enter a confined space. Note that only one Authorised Person may be on duty at a facility at any one time;
- the designated **Person in Charge (Confined Spaces)** will be responsible for direct control of entry into the confined space;
- the **Competent Persons (Work Team) (Confined Spaces)**: individuals permitted to enter and carry out work in a Confined Space;
- the **Safety Attendant (Confined Spaces)** will not directly be involved in the work but will have adequate knowledge, experience and ability to:
 - recognise danger;
 - keep watch;
 - prevent unauthorised interruption of the work;
 - apply first aid;
 - summon assistance under the control of the Person in Charge (Confined Spaces).

1.8 In the event of any doubt in the interpretation or application of these Procedures, this should be referred to the Duty Authorised Person (Confined Spaces) whereupon work will be stopped immediately and personnel withdrawn from the confined space until the issue is clarified. If necessary the advice of the Authorising Engineer or Designated Person (Confined Spaces) should be sought for clarification and resolution.

2. General arrangements

General

- 2.1 This Section examines the nature of Confined Spaces and sets out a system to determine initial classification to provide a starting point for deciding on the appropriate regime for the management of Confined Spaces.

Definitions

- 2.2 The Confined Space Regulations define a 'confined space' as any place, including any chamber, tank, silo, pit, pipe, sewer, flue or other similar space in which, by virtue of its enclosed nature, a reasonably foreseeable specified risk can arise.
- 2.3 Within the Regulations, a 'Specific Risk' means a risk of:
- serious injury to any person at work arising from a fire or explosion;
 - without prejudice to the above
 - the loss of consciousness of any person at work arising from an increase in body temperature
 - the loss of consciousness or asphyxiation of any person at work arising from gas, fume, vapour or lack of oxygen;
 - the drowning of any person at work arising from an increase in the level of liquid;
 - the asphyxiation of any person at work arising from a free flowing solid or the inability to reach a respirable environment due to entrapment by a free flowing solid.
- 2.4 The two defining features of a Confined Space are:
- it is a place which is substantially (although not always entirely) enclosed;
 - there will be a reasonably foreseeable risk of injury from hazardous substances or conditions in the space or nearby.

Note: If no specified risk is present or brought about by the work activity, the area need not be designated as a Confined Space and recourse to the Procedures may not therefore be required although a safe method of working is not obviated.

Confined spaces

- 2.5 Areas that are reasonably enclosed and one or more of the specified risks can normally be expected during normal activities, for example:
- boilers and similar vessels into which man entry is required as part of an

inspection;

- underground service tunnels and cable ducts where a specified hazard exists;
- all foul and storm water sewerage systems
- tanks.

2.6 The Controls and guidance that cover entry into Permanent Confined Spaces are set out in [Section 5](#).

2.7 Some places which fall within the definition of a confined space may be so only occasionally, perhaps due to the type of work to be undertaken, for example, a room during spray painting. Also, a confined space may not necessarily be enclosed on all sides. Some confined spaces, for example vats or silos may have open tops. Places not usually considered to be confined spaces may become confined spaces because of a change in the condition inside or a change in the degree of enclosure or confinement, which may occur intermittently. Regulations in any of these spaces will depend on the presence of a reasonably foreseeable risk of serious injury.

2.8 No person shall enter a confined space to carry out work for any purpose unless it is not reasonably practicable to achieve that purpose without such entry. Employers have a duty to prevent employees, or others who are to any extent within the employer's control, such as contractors, from entering or working inside a confined space where it is reasonably practicable to undertake the work without entering the space. Similarly, the self-employed should not enter or work inside a confined space where it is reasonably practicable to undertake the work without entering it.

3. Management arrangements

Confined spaces document centre

3.1 Secure storage of electronic or hard copies of documents shall be available for each facility to contain documents that support the relevant management arrangements, including:

- the Confined Space document register;
- permit pads or equivalent purpose-made permit system;
- other relevant standard forms.

3.2 When left unattended the storage facilities should be kept locked.

Confined space document register

3.3 This comprises the principal source of information for management providing detail of confined spaces within the facility, maintained by the Authorised Person (Confined Spaces). The register should typically contain the following information:

- index;
- schedules of the confined spaces associated with each facility; (paragraphs [3.5 - 3.8](#) refer)
- risk assessments applicable to each Confined Space;
- confined spaces operations record; (paragraphs [3.9 - 3.10](#) refer)
- equipment register including inspection and calibration certificates for any equipment held at the facility belonging to the NHS Board; (paragraphs [3.11](#) and [3.12](#) refer)
- written agreements defining demarcation of responsibilities indicating boundaries, operation, protection and maintenance procedures for equipment;
- current Confined Spaces Permit-to-Work (Confined Spaces) pads or equivalent system;
- copies of risk assessments, safety method statements and safety programmes relating to previous confined spaces work;
- relevant safety, technical and environmental directives, bulletins, alerts, local procedures and instructions issued by the Authorising Engineer or Designated Person (Confined Spaces).

3.4 The following information shall also be maintained in the Confined Spaces Document Centre:

- register of Confined Spaces Competent Persons:

- copy of, or reference to, HSE ACOP L101;
- copy of Procedures for Safe Work in Confined Spaces;
- copies of Certificates of Competency or reference to letters of appointment for Authorised Persons (Confined Spaces) and Competent Persons (Confined Spaces) including any subcontractors employed;
- copies of, or reference to, the Authorising Engineer or Designated Person (Confined Spaces) Audit Reports.

Confined spaces schedule

- 3.5 This shall record all pertinent details relating to the Permanent Confined Spaces within any one facility, including the following information:
- plans showing reference numbers and locations of confined spaces;
 - unique reference number;
 - location;
 - general description;
 - classification;
 - any known hazards applicable to each entry.
- 3.6 A sample format for each classification schedule is in [Appendix 1](#) – Model Forms.
- 3.7 The Confined Spaces Schedule and Confined Space Document Register will be live documents designed to contain the best available current knowledge. The information will be incorporated into the file on handover of major new works or, progressively, as discovered.
- 3.8 A Confined Space file for each Confined Space will be created containing all information and documentation relevant to the particular facility'

Confined spaces operations record

- 3.9 A Confined Spaces Operations Record (CSOR) should be prepared for each site comprising a log book clearly marked with sequentially numbered pages identified against the site to which they refer.
- 3.10 The CSOR should contain entries listing any activities undertaken in Permanent Confined Spaces or where a Permit-to-Work is required or a Standing Instruction is issued or revised. Entries should be in chronological order. (See [Appendix 1](#) – Model Forms for sample format).

Equipment register

- 3.11 Safety equipment maintenance is governed by the likes of the Provision and Use of Work Equipment Regulations, Personal Protective Equipment Regulations, Lifting Operations and Lifting Equipment Regulations, requiring

employers to ensure that such equipment is inspected and examined periodically via an appropriate inspection regime. Examination records should be retained for at least six years (or as otherwise directed by the contract) and should be readily available in suitable format for inspection and auditing.

- 3.12 A sample format for a register of equipment inspections can be found in [Appendix 1](#).

Keys and security

- 3.13 Management of confined spaces working and security arrangements require the use of two categories of keys the use and purpose of which is given below. These normally comprise:

- safety keys;
- access keys.

Safety keys and safety locks

- 3.14 These are used to:

- secure isolation valves in the open or closed position as required;
- isolate fuel and electricity supplies and secure temporary earths;
- secure by-pass valves in safe positions;
- secure open drainage points and vents.

- 3.15 Safety locks comprise padlocks indelibly painted red having only one unique and dedicated key. Each safety lock should be marked with a unique identification number matching the number labelled on the key.

Access keys

- 3.16 Access keys and locks are to be unique unless there is a system of uncontrolled locks installed.
- 3.17 If appropriate, access keys to Permanent Confined Spaces are to be under the Authorised Person (Confined Spaces) control unless site security arrangements dictate that these are held under site-wide security arrangements.
- 3.18 With manholes, access is recognised as generally controlled by the existence of a proprietary cover designed only to be lifted using an appropriate tool or key. In most circumstances these covers can be assessed as providing sufficient security. If, however, the Authorised Person considers that a Permanent Confined Space constitutes a particular risk of unauthorised entry, a Risk Assessment by the Authorised Person (Confined Spaces) may dictate that additional measures are needed to secure the cover.

Note: For sites with a small number of designated Access Keys the specified requirements for key storage will be determined by the Authorising Engineer or Designated Person (Confined Spaces) in consultation with the security authority for the facility, where necessary. Arrangements must ensure that access to the keys is always available to Authorised Persons (Confined Spaces).

Key registers

3.19 Where Access Keys are held under the control of the Authorised Person (Confined Spaces), issue and receipt of these must be controlled under a Key Register whereby the issue or return of a key is entered in the Register by Authorised Signatories with the following information:

- details of the key;
- name and signature of the person (including company or organisation name) receiving or returning the key;
- date and time of issue;
- signature of the Authorised Key Signatory;
- date and time of return.

Note: Key registers are to be kept in the Confined Spaces Document Centre.

Key tallies

3.20 If site-specific security arrangements result in keys not being under the direct control of the Authorised Person (Confined Spaces), all keys to Confined Spaces are to have a Confined Spaces key tally attached advising of the hazard and directing the recipient to consult with the Authorised Person prior to making any entry. A sample format for a Confined Spaces key tally can be found in [Appendix 1](#) – model forms.

Management of remote sites

- 3.21 Where there is no resident Authorised Person (Confined Spaces), the Authorising Engineer or Designated Person (Confined Spaces) is to determine suitable arrangements for the management of Confined Spaces working at that site and also determine the arrangements for custody of documents relating to the remote site.
- 3.22 In these circumstances the Authorised Person (Confined Spaces) appointed for remote sites shall complete and maintain the following information:
- a schedule of the confined spaces associated with the remote site;
 - a plan showing the reference number and location of confined spaces at the site;
 - a log of confined spaces entries effected at the remote site.

Note: Other aspects of the Confined Space Document Register (such as, equipment inspection registers, registers of Competent Persons, etc.) may contain information common to more than one site where such resources are shared. Where this is not the case, separate, site-specific Registers should be maintained.

Urgent or Unexpected Access to Confined Spaces

- 3.23 If unplanned work in confined spaces is deemed to be urgent, particularly outside normal working hours, then access must not take place without the requirements of this policy being met. Alternative arrangements shall be made to minimize the effect of the problem such as loss of essential services. Where possible, the task should be delayed until the next working day when it can be properly assessed. In extreme circumstances, the Authorised Person (Confined Spaces) shall be contacted so that a risk assessment can be carried out and safe working procedure and permit to work can be prepared as required.

If any staff member is unsure whether a location could be considered a confined space operatives should withdraw and not continue with the work until clarification has been received from the Authorised Person.

Safety signs

- 3.24 Under the Health & Safety (Safety Signs and Signals) Regulations there is a requirement for an appropriate safety sign to be displayed where a 'significant risk' identified under a risk assessment cannot effectively be controlled by any other means.

4. Management structure for safe systems of work

General

- 4.1 This section summarises the roles and duties of those who are involved in the management of Safe Systems of Work as identified in paragraph 1.7 and also identifies the specific and / or additional roles and duties of those connected with the management of work in Confined Spaces.

Management of untrained personnel

- 4.2 This would include personnel who do not normally undertake confined space work but who may need to enter a Confined Space to carry out a specific task. They may be exempt from the requirement to have attended a formal training course but such exemption will be subject to risk assessment by the Authorised Person (Confined Spaces). A record of the risk assessment should be entered into the Combined Spaces Operations Record along with the name and contact details of the personnel.
- 4.3 These visitors shall be under the direct control of the Person in Charge (Confined Spaces) and have been given sufficient on-site instruction and information relating to safe working and emergency procedures. The giving and receiving of such instruction shall be logged.
- 4.4 The Authorised Person (Confined Spaces) must be satisfied that the inclusion of the visitor does not create an increase in risk to the team entering the space.

Authorising Engineer or Designated Person (Confined Spaces)

- 4.5 The appointment of an in-house appointee is made in writing by the Chief Executive Officer or delegated person.
- 4.6 The Authorising Engineer or Designated Person (Confined Spaces) should be a suitably trained, qualified person with relevant experience in Confined Spaces and Safe Systems of Work.
- 4.7 Prior to formal appointment, the proposed Authorising Engineer or Designated Person (Confined Spaces) is required to have achieved the necessary standard of competence as determined at the initial appointment interview.
- 4.8 The role of the Authorising Engineer or Designated Person (Confined Spaces) is to implement, administer, monitor and audit the adoption of these Procedures.
- 4.9 Duties of the Authorising Engineer or Designated Person (Confined Spaces) include:
- identifying the numbers of Authorised Persons (Confined Spaces) necessary for the facilities or geographical area(s) to allow the effective

adoption and implementation of these Procedures;

- ensuring that a centrally maintained file is kept of all Authorised Persons (Confined Spaces) within their area of responsibility. This should include detail of locations and areas of the Authorised Persons (Confined Spaces) responsibility, appointment dates, qualifications, training certificates, refresher training, experience and general correspondence;
- ensuring that Authorised Persons (Confined Spaces) are suitably trained prior to appointment or re-appointment;
- interviewing Authorised Persons (Confined Spaces) and, where successful, making recommendations for appointment;
- interviewing Competent Persons (Confined Spaces) and, where successful, making recommendations for appointment;
- providing general advice to Authorised Persons (Confined Spaces) in the execution of their work.
- determining the key storage arrangements for Confined Spaces access keys for each facility;
- conducting audits in line with [Section 7](#) of these Procedures to ensure compliance;
- ensuring that any accident, deficiency or Dangerous Occurrence connected with Confined Space working is immediately notified to the responsible line manager or delegated person;
- further investigation of any accident or Dangerous Occurrences in relation to Confined Spaces;
- ensuring that safety, technical and environmental directives, alerts and bulletins relating to Confined Spaces are issued;
- ensuring that all Authorised Persons (Confined Spaces) have access to a copy of these Procedures;
- reviewing the operational experience of the appointed Authorised Person (Confined Spaces) to ensure competency is maintained and, where necessary, withdraw the certificate of appointment.

Note: All interviews should be recorded and records kept in the Safety File.

Authorised Person (Confined Spaces) – criteria

- 4.10 The appointment of the Authorised Person (Confined Spaces) is made in writing by the Authorising Engineer or Designated Person (Confined Spaces).
- 4.11 The Authorised Person (Confined Spaces) should be suitably trained and qualified, and have relevant previous experience in Confined Spaces and/or Safe Systems of Work.
- 4.12 Prior to final assessment by the Authorising Engineer or Designated Person (Confined Spaces), the proposed Authorised Person (Confined Spaces) is

required to have achieved the necessary standard of training set by the AE during an initial AP interview. Refresher training is required at periods not exceeding 3 years.

4.13 When suitably trained and prior to final appointment the Authorised Person (Confined Spaces) is required to demonstrate the following to the satisfaction of the Authorising Engineer or Designated Person (Confined Spaces):

- knowledge and site familiarity of the Confined Spaces incorporated within their area of responsibility;
- the location and layout of the Confined Spaces, keys and arrangements for obtaining access;
- 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 Procedures and any local variations within their area of responsibility;
- a general understanding of all relevant current legislation – in particular the Confined Spaces Regulations.

Note: On completion of training and assessment the Authorised Person (Confined Spaces) will be appointed to the position for a period of 3 years. This can be demonstrated by attaining the training and competence described in [Section 6](#).

Authorised Person (Confined Spaces) – role

4.14 The role of the Authorised Person (Confined Spaces) is to oversee and authorise all Confined Space work activity that takes place, in accordance with these Procedures.

4.15 Only one Authorised Person (Confined Spaces) can be on duty for a specified Confined Space at any one time.

Authorised Person (Confined Spaces) – duties

4.16 The Authorised Person (Confined Spaces) has sole responsibility for the practical application and operation of these Procedures and must:

- ensure, as far as is reasonably practical, that all persons on site comply with these Procedures;
- review all prospective Confined Space working and determine the appropriate level of control;
- ensure that all Confined Spaces are maintained in a safe condition at all times, reporting any potentially dangerous situations or occurrences to the responsible line manager and Health & Safety Advisor/coordinator;
- identify any difficulties in applying these procedures, any local procedures or any other actions necessary to ensure a Safe System of Work, including

discussing with the Authorising Engineer or Designated Person (Confined Spaces);

- ensure that all records, schedules and schematic drawings relating to Confined Spaces within their area of responsibility (including alterations and modifications) are maintained and up to date;
- ensure that all Confined Spaces operatives under the control of the Person in Charge (Confined Spaces) are adequately trained and medically fit to carry out the work required. Evidence of fitness and training of all Confined Spaces operatives must be provided if requested by the Authorised Person (Confined Spaces);
- ensure that all Confined Spaces safety controls, isolation points and vessels are clearly identified on the drawings and physically labelled/tagged;
- ensure that safety equipment has been registered and inspected and maintained in good condition to ensure that it is fit for purpose;
- ensure that Confined Spaces are adequately and clearly signed and that all entry points are secured according to the assessed risk;
- ensure that a risk assessment and safe system of work are prepared for each Confined Space operation;
- review the risk assessment and safety programme for each Confined Spaces operation, prepared by others;
- satisfy themselves that prospective Confined Space entrants are competent to carry out the work as described to them;
- issue Permits-to-Work for Confined Spaces;
- withdraw Permits-to-Work if an unexpected hazard becomes apparent;
- cancel Permit-to-Work on completion of work;
- inform the Authorising Engineer or Designated Person (Confined Spaces) and controlling manager of any accident or Dangerous Occurrence that occurs relating to Confined Space working;
- inform the Authorising Engineer or Designated Person (Confined Spaces) and controlling manager of any difficulties or unusual circumstances encountered or discovered during the execution of a Confined Spaces task;
- ensure that any external contractors appointed to work in Confined Spaces are competent to do so;
- ensure that procedures are in place for emergency evacuation.

Competent Person (Confined Spaces)

- 4.17 The Competent Person (Confined Spaces) is appointed by the Authorising Engineer or Designated Person after being assessed by the Authorised Person (Confined Spaces).
- 4.18 Competent Persons (Confined Spaces) are deemed suitable for specific appointments for any of the following roles on a task-by-task basis as identified

on the appropriate Safety Documentation issued by the Authorised Person (Confined Spaces):

- Person in Charge (Confined Spaces);
- Safety Attendant (Confined Spaces);
- Work Team (Confined Spaces).

4.19 The training requirements for Competent Persons (Confined Spaces) are identified in [Section 6](#). Responsibilities and duties will be as set out under the appropriate descriptions.

Assessment of competency

4.20 Confined Spaces Operatives will have their assessment of competency drawn up from a combination of the following:

- being presented with evidence of suitable training;
- demonstration of capability and familiarity with equipment to be used (e.g. the ability to carry out functional tests on any atmosphere monitoring equipment likely to be used);
- giving satisfactory responses to questions on the general nature of confined space hazards;
- having a professional approach and demeanour;
- if a contractor, provision of a statement of competency and evidence of suitable training (this could be in a letter format).

Note: Where the Authorised Person (Confined Spaces) is not satisfied that the Confined Spaces Operatives are suitably competent, they are not to proceed further with the issue of a Permit-to-Work (Confined Spaces).

Persons in Charge (Confined Spaces) - criteria

4.21 The appointment of the Person in Charge (Confined Spaces) is made on the Safety Documentation following satisfactory assessment by the Authorised Person (Confined Spaces).

4.22 The Person in Charge (Confined Spaces) is to be suitably qualified, trained and to have relevant experience.

4.23 Prior to assessment by the Authorised Person (Confined Spaces), the proposed Person in Charge (Confined Spaces) is required to have achieved the necessary standard of training to be agreed by the AP (CS) of which the requirements will be dependent on the work to be undertaken.

4.24 If suitably trained the Person in Charge (Confined Spaces) is required to demonstrate the following to the satisfaction of the Authorised Person (Confined Spaces):

- necessary technical knowledge of the task;
- possession of adequate knowledge of these Procedures;
- relevant experience;
- skills appropriate to working safely and without risk in Confined Spaces;
- ability to carry out suitable and sufficient risk assessments relating to the activities to be carried out.

Persons in Charge (Confined Spaces) – role

- 4.25 The role of the Person in Charge is to control directly the entry into a confined space.
- 4.26 The appointment of the Person in Charge (Confined Spaces) is made on a task-by-task basis with the issue of appropriate safety documentation. On signing the document the Person in Charge takes responsibility for ensuring that all work is carried out within the limits of the Safe System of Work.
- 4.27 At the same entry an Authorised Person (Confined Spaces) may not act in the capacity of a Person in Charge (Confined Spaces). The Person in Charge could be either an NHS employee or an external contractor.

Persons in Charge (Confined Spaces) – duties

- 4.28 The duties of the Persons in Charge (Confined Spaces) include the following:
- undertaking suitable and sufficient risk assessment to the satisfaction of the Authorised Person (Confined Spaces) to ensure that all safety measures necessary to avoid danger are taken to avoid danger and prevent injury;
 - ensuring that adequate first aid and emergency arrangements including rescue (not relying on emergency services) are in place before commencing the works;
 - ensuring that all necessary safety equipment is available, safe and suitable for use prior to entry into the confined space. Evidence of testing and calibration must be provided if requested by the Authorised Person (Confined Spaces).
 - being fully conversant and able to ensure compliance with the conditions set out in the Permit-to-Work (Confined Spaces) and agreed safety system of work;
 - ensuring that the Work Team are aware of the method of work set out in the agreed safe system of work, the means of communication, the emergency arrangements and the requirements of these Procedures, and that this is recorded on the Permit-to-Work (Confined Spaces);
 - carrying out reading 'pre-entry' gas test, completing the appropriate section on the Permit-to-Work (Confined Spaces) where appropriate;
 - ensuring that the only work carried out is that for which the Permit-to-Work (Confined Spaces) is valid;

- stopping work and withdrawing all personnel, tools, plant and equipment from the confined space if, for any reason, the conditions of the safe system of work or Permit-to-Work (Confined Spaces) cannot be met;
- reporting to the Authorised Person (Confined Spaces) any accident, dangerous occurrence, defects found or other exceptional incidents occurring during occupation of the Confined Space;
- always being present at the confined space work site when any work within the space is being carried out.

Safety Attendant (Confined Spaces) - criteria

4.29 The Safety Attendant (Confined Spaces) should be suitably qualified, trained and have relevant experience. If suitably trained the Safety Attendant (Confined Spaces) is required to demonstrate the following to the satisfaction of the Authorised Person (Confined Spaces):

- not to engage in work activity;
- having sufficient knowledge of the Confined Space layout in case of an emergency;
- understanding the hazards and associated risks of the work in confined spaces;
- being trained to an appropriate First Aid provision as determined by Risk Assessment, including burns, scalds and resuscitation including the use of resuscitation kits;
- being trained in fire safety, the use of extinguishers and emergency evacuation procedures.

Safety Attendant (Confined Spaces) – role

4.30 The appointment of the Safety Attendant (Confined Spaces) is made on a task-by-task basis with the issue of appropriate safety documentation.

4.31 The Safety Attendant (Confined Spaces) is to assist the Person in Charge (Confined Spaces) in executing the Confined Space task safely. The Safety Attendant is to remain on watch outside the confined space in a safe position close to the entry point while there is anyone inside the confined space. The person should continuously monitor the progress of those within and act as a communications link.

4.32 The Safety Attendant (Confined Spaces) must know who is authorised for entry into the confined space and the maximum permitted time allowed inside. A record should be kept of persons inside at any one time.

4.33 The Safety Attendant (Confined Spaces) must not be permitted to undertake tasks that may distract from the primary role and must remain alert to any change in conditions inside or external to the confined space that may affect the safety of the entrants and must notify the Person in Charge (Confined Spaces) immediately.

Safety Attendant (Confined Spaces) – duties

- 4.34 The duties of the Safety Attendant (Confined Spaces) are as follows:
- understanding the site procedure and location of persons to summon help (First Aiders, site nurse, fire, ambulance staff, trained rescuers and security);
 - establishing an effective communications system to enable the alarm to be raised in an emergency;
 - preventing unauthorised access in the Confined Space;
 - maintaining sufficient fresh air ventilation into the Confined Space; where this is deemed necessary and this fails, appropriate measures to withdraw the entrants must be taken;
 - in the event of an emergency, initiating the pre-arranged emergency procedures as laid down in the Safety Programme.

Work Team (Confined Spaces) - criteria

- 4.35 The Work Team (Confined Spaces) are named by the Authorised Person (Confined Spaces) on the Safety Documentation after being assessed and are required to demonstrate the following to the satisfaction of the Authorised Person (Confined Spaces):
- competency in carrying out the role and duties for which they have been designated;
 - familiarity with the type of work that they will be required to carry out;
 - possession of the necessary knowledge, skill and experience relevant to the individual's role and duties for the work to be done;
 - having successfully undertaken training which is acceptable to the Authorised Person (Confined Spaces) and suitable for the work to be done;
 - possession of adequate knowledge of these Procedures.

Work Team (Confined Spaces) – role

- 4.36 The role of the Work Team (Confined Spaces) is to carry out the work in the Confined Space as per the agreed safe system.
- 4.37 Where more than one member of a Work Team (Confined Spaces) enters a confined space, one person is to be nominated to lead the entry team and be in direct control of their activities in the confined space. This function is separate from the Person in Charge (Confined Spaces) and the Safety Attendant (Confined Spaces) and is to be known as the **Team Leader (Confined Spaces)**.
- 4.38 The Team Leader (Confined Spaces) is to ensure that effective communications are established and maintained with the Safety Attendant (Confined Spaces) and take the relevant actions in the event of any emergency in accordance with

the agreed safe system of work.

Work Team (Confined Spaces) – duties

4.39 The duties of the Work Team (Confined Spaces) are to:

- work in accordance with these Procedures or any local variations;
- take reasonable care of the health and safety of themselves and of any other person who may be affected by their actions or omissions;
- only use equipment on which they have been trained and in the manner in which they have been trained;
- report to the Person in Charge (Confined Spaces) any defects found in the tools, plant and equipment to be used in the works.

5. Confined Space entry procedures

Note: No person at work shall enter a Confined Space to carry out work for any purpose unless it is not reasonably practicable to achieve that purpose without such entry.

General

- 5.1 This Section describes the documents to be used and the procedures to be adopted when controlling entry into Confined Spaces.

Risk assessment

- 5.2 The Management of Health & Safety at Work Regulations require all employers (and self-employed) to assess risks to workers and any others who may be affected by their undertaking. Guidance is provided in the publication 'Successful Health & Safety Management – HSG65' and 'Five Steps to Risk Assessment' published by the Health & Safety Executive.
- 5.3 Risk Assessments are carried out to identify hazards, the persons affected and the degree of risk and consider suitable means of controlling or eliminating the risk and record how the control measures are to be implemented.
- 5.4 All works are initially to be risk assessed which may identify the need for a Confined Space-specific risk assessment to be carried out.
- 5.5 Prior to any entry into a Confined Space or Confined Area an assessment of risks has to be undertaken. This should review both existing known hazards associated with the confined space and the nature of the work to be carried out, including any materials to be used.
- 5.6 Depending on these or the hazard identified, additional risk assessments may be required from persons with relevant specialist experience.
- 5.7 The Authorised Person (Confined Spaces) is responsible for reviewing the task-specific risk assessments, Standing Instruction and Safe System of Work prior to the issue of the identified risks, potentially encountered hazards and the control measures to be implemented to ensure risks are reduced and maintained as low as reasonably practicable.

Note: Further guidance on the conduct of risk assessment can be found in the HSE Approved Code of Practice (ACOP) L101: 'Safe work in confined spaces'.

Determining the level of control

- 5.8 The level of control to be exercised by an Authorised Person (Confined Spaces) over entry into a Confined Space or Confined Area will be informed by the findings of the risk assessment.

5.9 The level of control exercised over entry will take the form of the following:

- Standing Instruction:
- Safety Programme and Permit-to-Work.

Standing Instructions

5.10 Sample formats for Confined Spaces Standing Instructions are in [Appendix 1](#)

Procedure for entry under a Standing Instruction

- 5.11 Where activity falls within the scope of an existing Standing Instruction it may be allowed to proceed. The Authorised Person (Confined Spaces) is to draw the attention of those engaged on the work to the limitations on work activity imposed by the Standing Instruction.
- 5.12 If the activity has the potential to give rise to one or more of the Specified Risks the task is to be controlled under a Permit-to-Work (Confined Spaces) and Safe System of Work with the Procedure outlined in [Figure 5.1](#) being followed.
- 5.13 If the activity is considered unlikely to give rise to a Specified Risk and control measures do not include the use of any type of Working Breathing Apparatus (WBA), but may require atmospheric monitoring and/or Escape Breathing Apparatus (EBA), as a control measure, the Authorised Person (Confined Spaces) must issue a Permit-to-Work (Confined Spaces) prior to allowing the work to proceed.
- 5.14 The procedure for entry under a Standing Instruction and Permit-to-Work (Confined Spaces) is summarised in [Figure 5.2](#) – ‘Procedure for Management of work in a Potential Confined Area’.

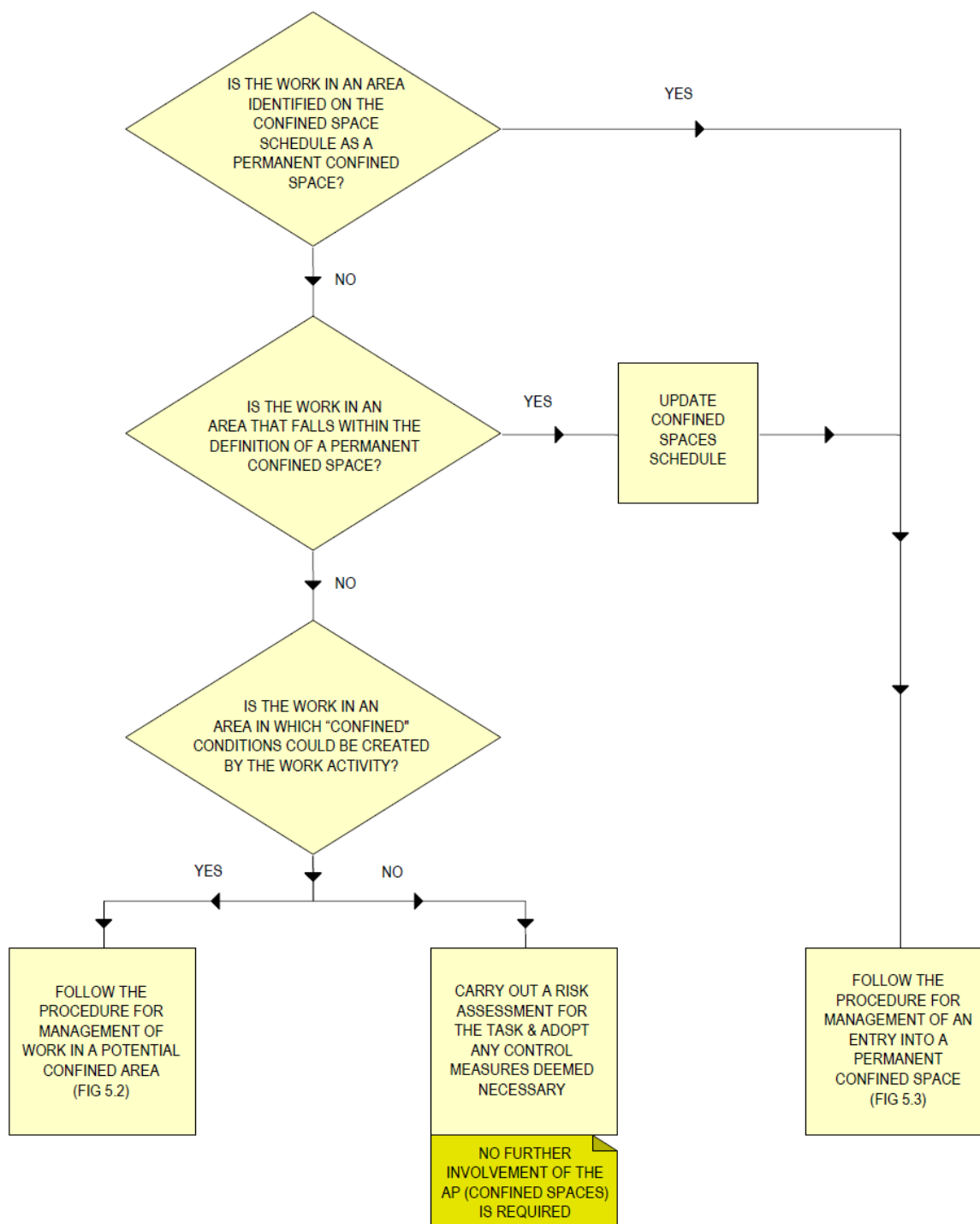


Figure 5.1: Determining the Level of Control

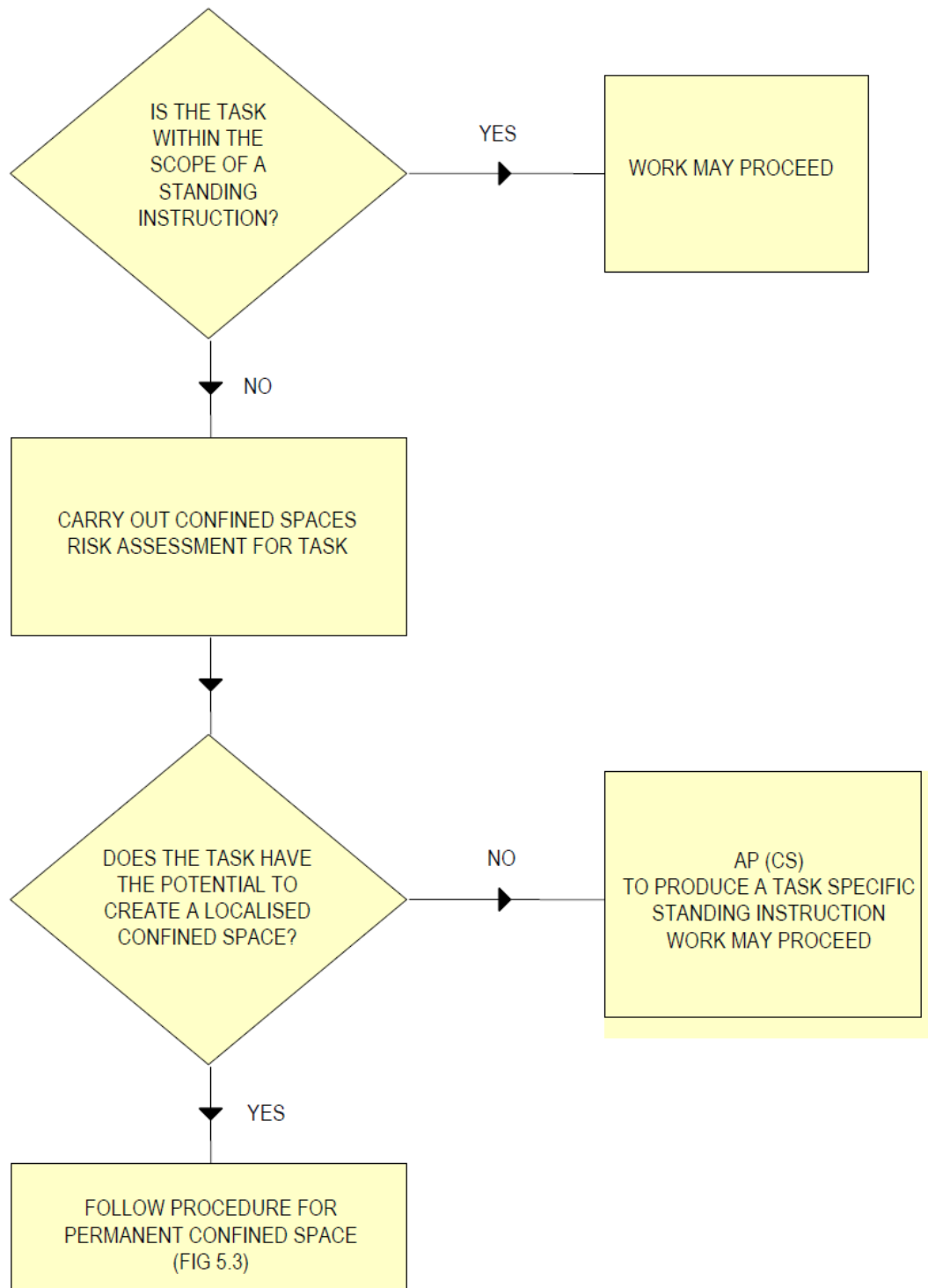


Figure 5.2: Procedure for Management of Work in a Potential Confined Area

Safe System of Work

- 5.15 A Safe System of Work is to be prepared for each entry into a Permanent Confined Space.
- 5.16 Where the Safe System of Work is prepared by a Contractor it is to be provided to the NHS Board to give assurance of competence.

- 5.17 Where the Authorised Person (Confined Spaces) prepares a Safe System of Work it is to be checked, approved and countersigned by a second Authorised Person (Confined Spaces) or the Authorising Engineer or Designated Person (Confined Spaces).
- 5.18 The Safe System of Work should include the following:
- a description of the confined space;
 - the precise site details and access;
 - a description of the work to be carried out including reinstatement work;
 - the plant and equipment being taken out of service (where applicable);
 - arrangements for isolation from gases, liquids and flowing materials (if applicable);
 - arrangements for isolation from mechanical and electrical equipment (if applicable);
 - details of associated hazards;
 - methods of reducing risk;
 - methods of ventilation, cleaning and purging of the confined space;
 - the expected date on which the task is to commence and the proposed duration;
 - a schematic diagram of the isolation, venting and testing arrangements;
 - the method of communication;
 - the emergency procedures and rescue arrangements;
 - any other special instructions and/or safety measures.
- 5.19 The sequence of operations within the Safe System of Work should describe how the risks are minimised prior to the commencement of the works. The operations should follow a logical sequence and incorporate all necessary safety operations including, but not restricted to, the following:
- **Planning the work:** Communicating with all interested parties, obtaining permission to proceed and assessing the requirements of the task in detail. Preparing a Safety Programme and carrying out any preparatory works;
 - **Prepare an emergency rescue procedure:** obtain the name of the person in charge of any emergency rescue operations and the appropriate emergency telephone numbers;
 - **Isolate:** Ensuring that all mechanical and electrical equipment is isolated and steps have been taken to prevent ingress of liquids, free-flowing solids, gases, vapour or fumes;
 - **Ventilate:** ensuring that the Confined Space is well ventilated by natural or mechanical means;
 - **Drain:** where necessary, arrange for the Confined Space to be drained of

any liquids or residues;

- **Pre-entry atmospheric tests:** to be carried out on 'Peak' setting by competent persons using appropriate test instruments to verify that conditions within the confined space are suitable for entry;
- **Issue/Accept Permit-to-Work** for the designated works when safe to do so;
- **Monitor** the environment, the people and external events while anyone is within the confined space.

5.20 Safe System of Work General Details and Continuation Sheets are to be used. Sample forms are in [Appendix 1](#), Model Forms.

Permit-to-Work (Confined Spaces)

- 5.21 The Permit-to-Work (Confined Spaces) procedure is an extension of the Safe System of Work, *not* a replacement. The Permit-to-Work (Confined Spaces) does not, by itself, make a job safe.
- 5.22 A Permit-to-Work (Confined Spaces) is to be used for control of entry to all Permanent Confined Spaces.
- 5.23 Each sheet of a Permit-to-Work (Confined Spaces) is to be identified by the same pre-printed serial number on the original and duplicate copies. Sets of consecutively numbered forms, bound in pads, should be used.
- 5.24 Only one pad of Permits-to-Work should be in use at any one time within each site for which an Authorised Person is on duty. When not in use, the pad should be kept secure.
- 5.25 A Permit-to-Work (Confined Spaces) should not be issued for any areas of work for which another Permit-to-Work (Confined Spaces) remains in force.
- 5.26 A sample Permit-to-Work (Confined Spaces) form can be found in [Appendix 1](#), Model Form 10.

Procedure for entry under a Permit-to-Work (Confined Spaces)

Preparatory work

- 5.27 Prior to issuing a Permit-to-Work (Confined Spaces) the Authorised Person (Confined Spaces) is to ensure that:
- a suitable and sufficient risk assessment and Safe System of Work are in place;
 - permission for the intended task has been obtained and any other person responsible for the day to day operation of the facility affected by the intended work is informed;
 - the proposed Work Team are suitably trained in Confined Space working and are considered competent to carry out the allotted task.

- 5.28 When the sequence of isolating operations detailed in the Safety Programme is being carried out prior to the issue of the Permit-to-Work (Confined Spaces) the Authorised Person (Confined Spaces) is to:
- note the date and time of each operation;
 - keep a record on file along with the approved Safety System of Work.
- 5.29 Where safety locks have been secured to protect or isolate a confined space the Authorised Person is to place the keys to the safety locks in the appropriate Safety Key Box and secure both the locks. The Authorised Person of the appropriate discipline is to retain the Authorised Person's key and issue the Person in Charge's key to the Person in Charge (Confined Spaces). That person is to retain the Person in Charge key until the Permit is cancelled.
- 5.30 Each Safety Key Box is to contain the safety keys associated with one permit only.

Issue of Permit-to-Work (Confined Spaces)

- 5.31 A Permit-to-Work (Confined Spaces) should be issued only at the place of work. It should not normally be issued for a period longer than eight hours or until the end of the working shift, whichever is the shorter.
- 5.32 Before completing and signing the appropriate sections of Part 1 of the Permit-to-Work (Confined Spaces) the Authorised Person (Confined Spaces) should confirm (where applicable) the following with the designated Person in Charge (Confined Spaces):
- that permission for the work has been confirmed;
 - the extent of the work to be carried out;
 - that the confined space has been isolated and associated Permits-to-Work and Certificates of Isolation (where necessary) have been obtained;
 - the safety arrangements at the place of work and at points of isolation;
 - any special instructions and/or safety measures are in place;
 - demonstrate that the control measures detailed in the Safe System of Work are in place.
- 5.33 The designated Person in Charge (Confined Spaces) is to be issued with a copy of the Safe System of Work along with the Permit-to-Work (Confined Spaces). This is to ensure that the work identified is carried out in accordance with the agreed safe method of working.
- 5.34 The Authorised Person (Confined Spaces) is to use the original copy of the Safe System of Work for the purpose of checking the isolation arrangements and that the agreed safe method of working is being followed.
- 5.35 The issue of every Permit-to-Work (Confined Spaces) is to be recorded in the Confined Spaces Operations Record specific to the site.

Receipt of Permit-to-Work (Confined Spaces)

- 5.36 Before accepting the Permit-to-Work (Confined Spaces) the designated Person in Charge is to:
- read the Safe System of Work and associated permit-to-Work (Confined Spaces) to confirm understanding;
 - understand the extent of work;
 - be prepared to undertake the work.
- 5.37 The Person in Charge (Confined Spaces) is to sign Part 2 of the Permit-to-Work (Confined Spaces). The signatures on Parts 1 & 2 of the Permit-to-Work (Confined Spaces) should appear on both the original and duplicate pages. The acceptance of a Permit-to-Work (Confined Spaces) makes the Person in Charge (Confined Spaces) personally responsible for supervising or undertaking the work.
- 5.38 The Authorised Person (Confined Spaces) issues the original of the Permit-to-Work (Confined Spaces) to the Person in Charge (Confined Spaces). The duplicate copy remains in the Permit pad.
- 5.39 During progress with the work the Person in Charge (Confined Spaces) is not permitted to leave the point of work or to undertake any other work or tests. If this is unavoidable the work must be suspended and safety precautions put in place until the Person in Charge returns. If the resulting stoppage should exceed the duration of the permit, the procedure for closure of the Permit-to-Work (Confined Spaces) should be followed.
- 5.40 If there are any adverse changes to the conditions within the confined space or the time limit on the Permit has expired, the work is to be stopped and the reasons reported to the Authorised Person. A note of any such instance should be entered in the Confined Spaces Operating Record.

Closure of Permit-to-Work (Confined Spaces)

- 5.41 On completion of the work the Person in Charge (Confined Spaces) is to:
- withdraw all persons, equipment tools and instruments from the point of work following any reinstatement works;
 - advise all persons under their control that they are no longer permitted to enter the confined space;
 - complete and sign Part 3 of the Authorised Person (Confined Spaces) (the duplicate) copy of the permit recording that the work has been completed;
 - return the original Permit-to-Work (Confined Spaces) to the authorised Person (Confined Spaces).

Cancellation of Permit-to-Work (Confined Spaces) and filing of records

5.42 The following procedures should be followed:

- the Authorised Person (Confined Spaces) should be satisfied that the work has been completed satisfactorily in accordance with the Safe System of Work;
- the Authorised Person (Confined Spaces) is to cancel the Permit-to-Work (Confined Spaces). The Authorised Person is also to transfer any supplementary information from the (surrendered) original copy onto the duplicate copy;
- the Authorised Person (Confined Spaces) is to ensure the removal of any keys, locks, signs or other safety equipment used for the work. Where associated Permits-to-Work, sanctions or other documentation such as Certificates of Isolation have been issued, the Authorised Person (Confined Spaces) should liaise with the issuing officer to arrange recommissioning of any plant and equipment withdrawn from service;
- when the Authorised Person cancels the permit this confirms that the site has been returned to a state of safety. This could be due to insufficient time or adverse conditions arising to prevent completion of the works and requires issue of another Permit-to-Work (Confined Spaces) to achieve completion, or, the works the works have been completed and are safe to operate.

Note: Under these circumstances the original copy of the permit should be defaced with the word 'CANCELLED' written in large letters diagonally across the face of the document.

5.43 Each time a Permit-to-Work (Confined Spaces) is cancelled, this should be recorded in the site-specific Confined Space Document Register. The defaced original should be filed in the Confined Space Document Register along with the Safe System of Work and Risk Assessment for the task. Any difficulties or unusual circumstances encountered during the carrying out of the task should also be recorded in the Confined Spaces Operations Record specific to the site.

Note: The procedure for entry under a Permanent Control Space is summarised in [Figure 5.3](#) – 'Procedure for Management of an Entry into a Permanent Confined Space'.

Ordering cessation of work

5.44 The Authorised Person (Confined Spaces) or Person in Charge (Confined Spaces) may stop the work due to a required change in the agreed work or conditions within the Confined Space. Where the work has been stopped by them the Person in Charge (Confined Spaces) is to:

- withdraw all persons and, if safe to do so, all equipment, tools and

instruments from the place of work;

- advise all persons under his/her control that they are no longer permitted to enter the confined space;
- take steps to prevent further access to the confined space and otherwise make the site safe;
- report to the Authorised Person (Confined Spaces) recording that work has been stopped and the point of work has been made safe;
- where work has stopped, review the safety documentation prior to issue of a new Permit-to-Work;
- return the original Permit-to-Work (Confined Spaces) to the Authorised Person (Confined Spaces).

5.45 In the above circumstances the Authorised Person (Confined Spaces) should:

- complete Part 4 on the duplicate copy recording that the work has been stopped;
- record the reasons for the stoppage;
- deface the original copy of the Permit-to-Work (Confined Spaces) as previously described;
- record the circumstances in the Confined Spaces Operations Record.

Note: No work may recommence without a review of the Risk Assessment, Standing Instruction or Safe System of Work prior to the issue of a new Permit-to-Work (Confined Spaces).

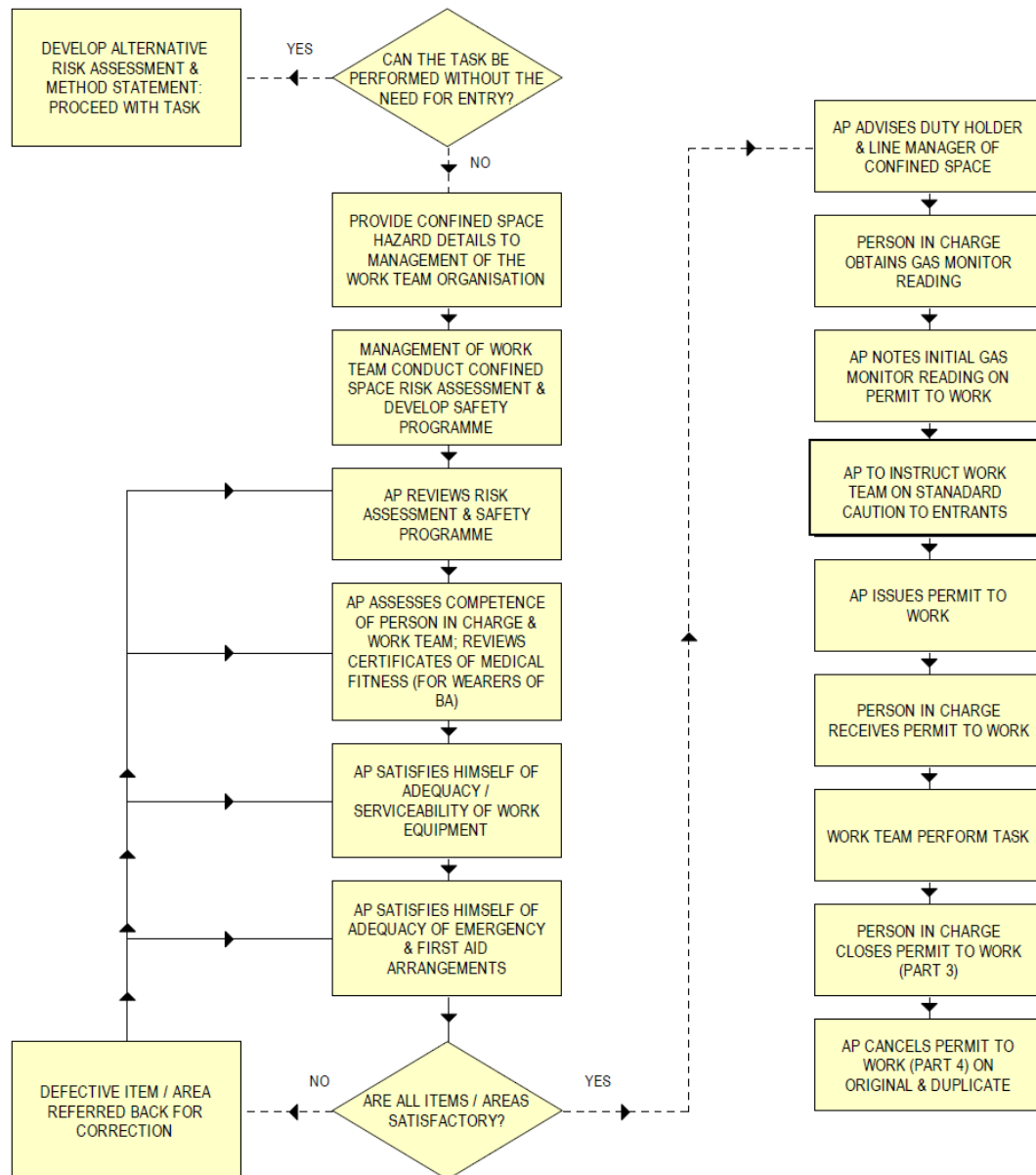


Figure 5.3: Procedure for Management of Entry into a Permanent Confined Space

Retention of records

5.46 The following procedures should be followed:

- completed pads of permits should be retained in the Confined Spaces Document Centre for a minimum period of 10 years after the cancellation of the last Permit-to-Work in the pad;
- the cancelled original Permit, together with its associated Risk Assessments, Standing Instructions and Safe Systems of Work are to be retained in the Confined Space Document Centre for a minimum period of 10 years after the cancellation date.

Action on loss of documentation

5.47

In situations where the Person in Charge (Confined Spaces) loses either the original Permit-to-Work (Confined Spaces) or his/her copy of the Safe System of Work, the Authorised Person (Confined Spaces) should:

- have work stopped immediately the loss is noticed until such time as new documentation is issued;
- when loss of documentation has caused work to be stopped, the loss should be recorded by the Authorised Person (Confined Spaces) in the Confined Spaces Operations Record;
- the duplicate copy should be defaced with the words '**ORIGINAL COPY OF PERMIT LOST**' written in large print, diagonally across the face of the document;
- the *duplicate* copy should also be signed respectively by the Person in Charge (Confined Spaces) and Authorised Person (Confined Spaces) to acknowledge the loss.

6. Training

Introduction

- 6.1 Employers are required to provide such information, instruction, training and supervision as is necessary to ensure the health and safety at work or employees. Specific training for work in confined spaces will depend on an individual's previous experience and the type of work they will be doing. It is likely that this training will need to cover:
- an awareness of the Confined Spaces Regulations and in particular the need to avoid entry to a confined space unless it is not reasonably practicable to do so, in accordance with regulation 4(1);
 - an understanding of the work to be undertaken, the hazards and the necessary precautions;
 - an understanding of Safe Systems of Work with particular reference to 'permits-to-work' where appropriate;
 - how emergencies arise, the need to follow prepared emergency arrangements and the dangers of not doing so.
- 6.2 Authorised Persons/Authorised Engineers are responsible for undertaking a suitable training needs analysis to identify the competence requirements for each level of confined space work. A significant aspect of this duty is to ensure that the level of training provided is suitable and that the persons delivering the training are competent to do so.

Although not extensive, the following descriptors provide guidance as to the type of training courses the Appointed Person/ Authorised Engineer should consider.

Confined Spaces (Management) Training

- 6.3 Managers who have appointed or require additional training shall be able to manage the confined space entry or task, or required to perform the role of Appointed Persons / Authorising Engineer.

Course content should include:

- an understanding of Confined Space legislation;
- recognition a confined space and classification;
- an understanding of the hazards associated with confined spaces;
- awareness of Health & Hygiene aspects of the confined space environment;
- an understanding of the personalities and their duties regarding confined spaces procedures;
- risk Assessment;

- permits to Work;
- safe Systems of Work;
- emergency procedures.

Confined Space (Supervisor) Training

- 6.4 Supervisors who have been appointed or require additional training shall be able to manage the confined space entry, task or required to perform the role of site supervisor.

Course content should include:

- an understanding of Confined Space legislation;
- undertaking risk assessments of Confined Spaces Working;
- working with Permits to Work;
- developing safe systems of work and safe methods of work at Confined Spaces;
- selecting, installing and maintaining control measures including hygiene procedures;
- understanding the mechanism of atmosphere testing and monitoring;
- developing, installing and maintaining emergency plans and procedures;
- maintaining records and documents for Confined Spaces working.

Confined Space (Entry) Training

- 6.5 The course content will be determined by the risk associated with the confined space. For example, the training requirements for entering a space which requires the use of breathing apparatus will be more stringent than low/medium risk spaces. An example of the course content for medium risk is as follows:

Course content should include:

- preparing to enter and work safely in medium risk confined spaces;
- safe entry and exit to/from confined spaces;
- preparing and using escape breathing apparatus in accordance with manufacturers' specifications where required;
- safe use of equipment and tools in accordance with manufacturers' specifications;
- following safety procedures and working safely;
- dealing with emergencies;
- use appropriate behaviour for working in medium risk confined spaces;
- use general knowledge for working in medium risk confined spaces;

- apply industry specific knowledge for working in medium risk confined spaces.

Confined Space (Awareness) Training

- 6.6 For personnel who are responsible for safe working practices and required to identify possible confined spaces.

Course content should include:

- introduction to Confined Space legislation;
- ability to recognise and identify a confined space;
- understanding of the hazards and risks associated with confined spaces;
- awareness of Health & Hygiene aspects of the confined space environment.

Emergency Rescue and Recovery of Casualties from a Confined Space

- 6.7 For personnel who may form part of a team of rescue workers who may need to enter and assist persons to exit the confined space in the event of an emergency. Rescue team members should also be trained in First Aid at Work.

Course content should include:

- preparing to work safely in confined spaces under emergency conditions;
- entry and exit confined spaces safely;
- preparing and using breathing apparatus in accordance with manufacturers' specifications;
- use of rescue equipment safely and in accordance with manufacturers' instructions;
- following procedures and work safely;
- dealing with emergencies.

First Aid at Work

- 6.8 For personnel who form part of the emergency response team members.

Course content should include:

- knowledge of the action to take in an emergency situation;
- knowing and demonstrating basic life saving techniques;
- diagnosing and dealing with injury and illness in the workplace.

Emergency First Aid at Work

- 6.9 To provide emergency first aid cover for employees work in isolated environments.

Course content should include:

- knowing the action to take in an emergency situation;
- knowing and demonstrating basic life saving techniques;
- diagnose and deal with injury and illness in the workplace.

7. Audits, monitoring and inspections

General

7.1 **Auditing** comprises the structured process of collecting independent information relating to efficiency, effectiveness and reliability of the management system and the drawing up of plans for corrective action when required.

Monitoring is the process followed to ensure that Procedures are being correctly operated.

7.2 The audit regime has a dual purpose:

- to ensure procedures and safe working systems are kept under review and changed to adapt to changes in circumstances and developments;
- to secure implementation and competence.

7.3 The Authorising Engineer should arrange and oversee regular monitoring and periodic auditing of the application of the Procedures. Auditing and monitoring should be undertaken in line with local NHS organisations policy for auditing and measuring performance.

Monitoring

7.4 Monitoring will be undertaken by the Designated Person (Confined Spaces). The Designated Person (CS) is responsible for the implementation of the policy and must be able to demonstrate its effective delivery.

Authorised Persons (Confined Spaces) should undertake monitoring of Confined Space Operatives to ensure that the quality relating to competence and workmanship is being maintained.

Auditing

7.5 Authorising Engineers or Designated Persons (Confined Spaces) are expected to undertake a full Compliance Audit and an Interim Compliance Audit at each establishment for which they are responsible.

The Authorising Engineer or Designated Person will undertake an annual review of the Authorised Person (CS) training needs so that recommendations can be included within the audit report on any applicable training requirements.

Audit Reports and Action Plans

7.6 The appointed auditors as identified by the organisation's local policy on Audit are to generate programmes for their audits. A copy of the audit programme should be forwarded to the Authorising Engineer who is to amalgamate, by specialism, the programmes received.

Once the Compliance Audit has been completed the auditor compiles a report on the findings.

An Action Plan will follow the report if necessary to redress any identified weaknesses. This should be compiled by the Authorising Engineer or Designated Person (Confined Spaces).

Monitoring by the Authorising Engineer or Designated Person (Confined Spaces)

- 7.7 This is expected to consist of a review of each Authorised Person's (Confined Spaces) familiarity with and performance of their duties.
- 7.8 The Authorising Engineer or Designated Person (Confined Spaces) should determine the quantity of evidence required to judge the performance of each Authorised Person (Confined Spaces). This will vary from time to time and from individual to individual.

Monitoring by the Authorised Person (Confined Spaces)

- 7.9 Day-to-day monitoring is expected to be undertaken by the Authorised Person (Confined Spaces) to assess safety aspects of operatives on site under the AP's control.
- 7.10 The Authorised Person (Confined Spaces) should monitor all Confined Spaces Operatives for assessment of their competence and quality of work. This should be undertaken in accordance with the Procedures and inclusion of the following would be expected:
- inspections of locations, equipment and systems having significant risk, safety equipment and quality checks of workmanship and materials employed;
 - notifying the Authorising Engineer or Designated Person (Confined Spaces) in the event of failure to reach a resolution and areas of Procedures non-compliance.

Review by the Authorising Engineer (where appointed)

- 7.11 Compliance reviews should be carried out by the Authorising Engineer of the following:
- a representative sample of Designated Person (Confined Spaces) reports and action plans received;
 - an annual review of the training needs of the Designated Person (Confined Spaces). Part of this review should include a training programme.

8. Medical requirements

General

- 8.1 All workers who may have cause to enter Confined Spaces can be expected to require a reasonable standard of physical fitness. The fitness level will, however, depend on the task to be performed.
- 8.2 The Occupational Health Service will assess each individual for the tasks they undertake in or around confined spaces based on the assessed risks for these.

Bacterial and viral infection

- 8.3 For all persons likely to come into contact with sewage or contaminated surface water or soil, employers may need to consider appropriate inoculations against bacterial and viral infections associated with this work. The need for such inoculations would be assessed by Occupational Health Service as part of the assessment in paragraph 8.1.
- 8.4 All persons likely to come into contact with sewage, contaminated water, soil or infected animals must be aware of the symptoms of Weil's disease (*Leptospirosis*) and be issued with an information card. Text for a sample information card is provided in [Appendix 1](#) – Model Form 7
- 8.5 A number of substances have been proved to cause dermatitis including:
- mineral oils (such as diesel and other fuels)
 - certain industrial chemicals (such as alkalis, nickel salts, mercury compounds);
 - insecticides;
 - formaldehydes;
 - synthetic resins;
 - glass fibre;
 - solvents;
 - de-greasers (such as paraffin or turpentine);
 - tar pitch or other coal tar products.

Before working with such substances the appropriate data sheet should be consulted.

Note: All persons working in confined spaces must be aware that personal hygiene measures, skin care and cleanliness greatly reduce the risk of bacterial and viral infections and industrial dermatitis.

Medical examinations and medical surveillance

- 8.6 All persons who are to work in breathing apparatus must have attended a medical examination within 3 years of the actual date of use. Evidence of medical clearance for such work must be checked by the Authorised Person (Confined Spaces) as part of the preparatory work for the issue of a Permit-to-Work (Confined Spaces).
- 8.7 Those who have been assessed as only occasionally needing to wear such equipment do not require to keep this medical certification permanently “in-date”. However, where circumstances arise that require breathing apparatus to be worn, individuals should gain recertification.

Appendix 1: Model Forms

The following Model Forms and signs have been developed for use with these Procedures as an aid to compliance.

Note: The use of the various Model Forms and signs is not mandatory in the implementation and operation of these Procedures.

The following Forms contained within this Appendix are intended for use by Confined Spaces Managers to assist in the controlling of Confined Spaces operations.

Title	Content
Model Form 1	Confined Space Register
Model Form 2	Confined Spaces Operations Record
Model Form 3	Confined Spaces Equipment Register & information record
Model Form 4	Confined Spaces Equipment Inspection Record
Model Form 5	Confined Spaces Key Register
Model Form 6	Confined Spaces Key Tally and Signs
Model Form 7	Confined Spaces <i>Leptospirosis</i> (Weil's disease Warning Card)
Model Form 8	Confined Spaces Risk Assessment Form
Model Form 9	Confined Spaces Safe System of Work
Model Form 10	Confined Spaces Permit-to-Work
Model Form 11	Sample Letter to Occupational Health Service
Model Form 12	Sample Medical Pro-forma

Model Form 1

Confined spaces register

Confined Space Reference	Key Number	Location	Confined Space	Common Tasks	Potential hazards ¹	Potential risk	Risk Assessment Number	Developed Safe Systems of Work Number(s)	Remarks
		eg Boilerhouse	water tanks	Cleaning & maintenance	Lack of breathable oxygen, sudden flood, restricted access	High	xxx	xxx	For all instances, emergency escape & rescue personnel required

Model Form 2

Confined spaces operations record for

Site:

This Confined Spaces Operations Record is to be kept in the Confined Spaces Document centre.

Rules for the upkeep of the Confined Spaces Operations Record

- Only one Confined Spaces Operations Record (CSOR) is to be in use for each site, location or geographical area, as determined by the AE(CS);
- Entries are to be made in chronological order, and are to be ruled off after each entry. Entries are to include:
 - the issue and cancellation of each Permit to Work;
 - the loss of a Permit to Work;
 - the change in conditions inside a Confined Space, whilst a Permit is open;
 - the withdrawal of a Permit to Work; the issue and return of a key from the Working Key Cabinet;
 - details of any Dangerous Occurrence connected with Confined Space working;
 - issue and cancellation of each Standing Instruction;
 - on arrival, the name of the person assuming AP (CS)'s duties, arrival and departure times and the reason for the visit;
 - on departure, an accurate record of the operations that have been undertaken, and a record of any important points that may be useful to other Authorised Persons who may be called to complete a programme of work.

Model Form 2 continued

Date and time of operation	Event or operation and reason	Name and signature of AP

Rule off after each entry.

Model Form 3

Page no.....of.....

Confined spaces equipment register and information record

Register of: (general nature of equipment)	
---	--

[illegible]

Model Form 4

Confined spaces equipment inspection record

Inspection record for: (Item description)	
Serial/Identification no/Marking	
Inspection frequency	

Note: This form may not be used as a substitute for a Certificate of Calibration from a NAMAS accredited laboratory.

Date examined	Signature of examiner	Remarks	Next due

Model Form 5



Confined spaces key register

Key register for:
(Establishment)



Date & time of issue	Key no	To give entry into (location)	Name of person drawing key	Signature	Contact tel. no	Date & time of return	AP initials

Model Form 6



Confined spaces key tally and signs

	Warning - This key controls access to a Potential Confined Area or Confined Space
	Contact Duty AP (Confined Spaces) before issue. Contact: <input type="text"/>

i) Confined Space/ Potential Confined Area Key Tally

	Danger Confined Space
	Permit to work required before entry. Contact: <input type="text"/>

ii) Safety Sign to be posted at entrances to Permanent Confined Space

	Warning Potential Confined Area
	Contact Duty AP (Confined Spaces) before entry Contact: <input type="text"/>

iii) Sign to be posted (where practicable) at entrances to Potential Confined Area

Colour scheme: As per the Safety Signs & Safety Signals Regulations.

- **Warning:** Black device / writing on yellow background.

Model Form 7

Confined spaces Leptospirosis (Weil's disease) warning card

To the doctor		<i>Leptospirosis</i> (Weils disease)
The holder of this card is engaged in work, which may expose them to <i>Leptospira</i> , (either <i>L. icterohaemorrhagiae</i> or <i>L. hardjo</i>). Early diagnosis and treatment are vital in Weil's disease as jaundice is often absent in the early stages. The illness in <i>L. hardjo</i> may also be greatly shortened by appropriate antibiotic treatment.		Advice and safety precautions for those working in contact with sewage, contaminated water, soil or infected animals. Important: this card is for your protection – keep it with you at all times.
(Your local Public Health Laboratory Service or hospital consultant microbiologist should be able to offer advice and serological testing).		
You or your doctor can also get further information from the Employment Medical Advisory Service at any office of the Health & Safety Executive		
	Reproduced from material published by the Health & Safety Executive	

Model Form 7 (continued)

Confined spaces Leptospirosis (Weil's disease) warning card (continued)

<p>What is <i>Leptospirosis</i>?</p> <p>Two types of Leptospirosis can affect workers in the UK. These are:</p> <ul style="list-style-type: none"> • Weil's disease. This is a serious and sometimes fatal infection that is transmitted to humans by contact with urine from infected rats; • The Hardjo form of Leptospirosis. This is transmitted from cattle to humans. 	<p>How might I catch it?</p> <p>The bacteria can get into your body through cuts and scratches and through the lining of the mouth, throat and eyes after contact with infected urine or contaminated water, such as in sewers, ditches and ponds and slow flowing rivers. Rat urine may also contaminate other material in areas where they are encountered.</p>	<p>Wash thoroughly in soap and water any cut, scratch or abrasion of the skin, whenever it occurs. Apply a clean waterproof dressing and keep the wound covered until it is totally healed. Wash your hands and forearms thoroughly with soap and water after working in contact with any animals, water, sewage, or contaminated clothing and before eating drinking or smoking.</p>
<p>What are the symptoms?</p> <p>Both diseases start with a flu-like illness with a persistent and severe headache.</p>	<p>How can I prevent it?</p> <p>Get rid of rats. Don't touch rats with unprotected hands. Always ensure that a clean waterproof adhesive dressing covers any cuts or abrasions on your skin. Wear protective clothing, particularly gloves wherever this is possible. Avoid contact of your hands with your mouth or nose during work.</p>	<p>What else should I do?</p> <p>Report any illness to your doctor. Tell the doctor about your work and show this card to them. <i>Leptospirosis</i> is much less severe if it is treated promptly. If your doctor diagnoses <i>Leptospirosis</i>, you must tell your employer, who must tell the Health & Safety Executive. If you are self-employed, you must report it yourself.</p>
<p>Who is at Risk?</p> <p>Anyone who is exposed to rats, rat or cattle urine or to foetal fluids from cattle. This includes sewer workers; those in contact with canal and river waters; farmers; vets; abattoir workers and butchers.</p>		

Model Form 8

Confined spaces risk assessment form

1. Area:	2. Assessment No. Assessment date Assessor(s)
3. Activity:	4. Number of persons at risk

Initial Assessment of Activity and Work Area

- Does the work involve any chamber, tank, pit, trench, pipe, sewer, flue, combustion chamber, unventilated or poorly ventilated rooms of any substantially enclosed space?

YesNo
- Is the need to access the confined space essential without reasonable alternative? If "NO" then this confined space risk assessment may not be applicable to this activity and risk assessment may not be required. If "YES" continue below with more detailed assessment.

YesNo

Current Control Measures			
	Yes	No	Comments
1. Work to be done without entry			
2. Confined Spaces Permit-to-Work			
3. Other persons affected by work informed			
4. Services to be isolated			
5. Gas monitoring equip. to be carried out			
6. Escape BA to be carried by all			
7. Additional ventilation required			
8. Limited working time for any persons within the space			
9. Additional supervision required			
10. Staff training required			
11. Restricted access barriers / warning notices required			
12. Access / entry point arrangements to be confirmed			
13. CCTV available for continuous monitoring			
14. Effective mobile communication in place			
15. Other			

Hazards Involved in Activity			
	Yes	No	Comments
1. Toxic gases / vapours			
2. Explosive / Flammable substances			
3. Oxygen deficiency / Enrichment			
4. Chemical contaminants or residues			
5. Scale, Rust or Sludge			
6. Gases / Fumes generated from work			
7. Poor lighting			
8. Restricted access / egress			
9. Flooring due to weather or uncontrolled ingress from other source			
10. Work activity more than 3 minutes from point of egress			
11. Poor structural condition of access ladders, etc			
12. Poor communication with man above ground			
13. Danger of contact with live electrical conductors			
14. High temperatures			
15. Asbestos			
16. Excessive noise			
17. Manual Handling			
18. Other			

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Model Form 9

Safe System of Work

Confined Space Area	SSW No. Associated Risk Assessment No.
Reasons for Entry:	Date:
Who is supervising the task (name)?	Are they competent and physically able to do the task?
Who will be accessing the confined space (names)?	Are they competent and physically able to do the task?
Detail Communication being used.	
Detail lighting to be used.	
Testing/monitoring the atmosphere – by whom and using what method?	
Gas purging – is it required?	
Ventilation – is it required?	
Removal of Residuals – is it possible?	
Isolation from Gases, Liquids and other Flowing Material – how is this going to be achieved?	Isolation from Mechanical and Electrical Equipment – how is this going to be achieved?
Selection of Suitable Equipment.	PPE and Respiratory Equipment
Portable Gas Cylinders and Combustion Engines – are they required?	
Gas Supplied by Pipes/Hoses – are they required?	
Access and Egress – how?	

Static Electricity – is this present?	
Lighting – how?	
Emergency and Rescue – what arrangements are in place? Include means of summoning assistance, rescue team and confirm availability of Rescue Equipment etc. List equipment available. (Inform Emergency Services at Entry)	
Limited Working Time - does working time need to be limited?	
Other comments	
Signed by	Accepted by on behalf of Organisation

Model Form 10

Confined Spaces Permit to Work

Hospital:

Location of confined space: _____

Order No. _____

Permit to Work issued (date) _____

CATEGORY OF CONFINED SPACE HIGH RISK MEDIUM RISK LOW RISK

Reason for entry/work:
List known hazards:
Names of individuals in work team:
Has the competency of the work team been checked? Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>I hereby declare that the conditions of the permit have been made known to the person in charge of the work and the above mentioned area is ready for operations to commence.</p> <p>Signed: _____ Authorised Person:</p> <p>Date: _____ Time: _____</p>
<p>ACCEPTANCE OF PERMIT by person in charge</p> <p>I acknowledge receipt and the contents of this permit to work and understand that the precautions of this and other associated permits for the specific work activities and neither I nor men under my control shall work on any other activity than that specified on this permit.</p> <p>Signed: _____</p> <p>Person in Charge of Work: _____</p> <p>Date: _____ Time: _____</p>
<p>Expected duration of task:</p> <p>Starting at: _____</p> <p>On (date) _____</p>

Checklist:			
Have all inflows been stopped or diverted?	Yes	No	N/A
Have all plant/equipment/utilities been isolated/locked out?	Yes	No	N/A
Are special precautions or equipment required?	Yes	No	N/A
Are warning signs/barriers in place?	Yes	No	N/A
Cleansing purging inerting complete?	Yes	No	N/A
Is forced ventilation in place and working?	Yes	No	N/A
Lighting installed?	Yes	No	N/A
Safety & protective equipment examined?	Yes	No	N/A
Emergency rescue procedures in place?	Yes	No	N/A
Rescue Services informed?	Yes	No	N/A
Safety method statement attached?	Yes	No	N/A
Other permits required?	Yes	No	N/A

Clearance by person in charge of work

I declare that the work is complete, the area inspected and all potential sources of harm, removed including redundant equipment:

Signed: _____

Person in charge:

Date: _____ Time: _____

Cancellation by Authorised Person

I declare that this permit is cancelled, that I have received the copies of the permit back from the competent person and that the area has been inspected and is free from potential sources of harm.

All other associated permits must be cancelled before signing.

Signed: _____

Authorised Person: _____

Date: _____ Time: _____

Model Form 11

Sample letter to Occupational Health Service

Maintenance Management Organisation

Street Name : _____

Town: _____

County: _____

Post code: _____

Telephone: _____

Facsimile: _____

Date: _____

To: Occupational Health Service

Our ref: _____

Your ref: _____

Person's Name: _____**Assessment of medical fitness to work in confined spaces and to wear breathing apparatus.**

The above named member of our staff has been selected to undertake the duties detailed below that may require him or her, from time to time, to enter and work in Confined Spaces.

Insert information here on the type of confined space and associated risks.

This work will/will not* require the individual to wear breathing apparatus.

In order for us to satisfy ourselves that the above named person is fit to undertake these duties, I should be grateful if you would undertake a medical assessment.

I would be grateful if you could advise me of your finding, on completion of your examination.

(Signed) _____

Estates Manager

* Strike through as appropriate

Model Form 12

Sample Pro-Forma to attach to letter to Occupational Health Service

Dear Sir/Madam,

Assessment of medical fitness to work in confined spaces and to wear breathing apparatus

I confirm that I have undertaken a medical examination of _____¹
on _____² as requested in your referral letter dated _____³

I consider the individual **fit/unfit**⁴ to enter and work in Confined Spaces, wearing breathing apparatus, personal protective clothing and respiratory equipment as required excluding/including⁴ the use of air-fed breathing apparatus.

5

¹ Name of Patient

² Date of Medical Examination

³ Date of referral letter

⁴ Strike through as appropriate

⁵ Signature of Occupational Health

Further reading

The Control of Substances Hazardous to Health Regulations 2002 (COSHH);

Control of Lead at Work Regulations 1998;

The Electricity at Work Regulations 1989;

The Provision and Use of Work Equipment Regulations 1992 (HSE ACoP ISBN 0 11 886332 0);

Safe work in confined spaces, Approved Code of Practice and Guidance HSE ACoP L101;

The Control of Asbestos at Work Regulations 2006;

The Noise at Work Regulations 1989;

Ionising Radiation Regulations 1999;

The Construction (Design and Management) Regulations 2007 and the **Construction (Health, Safety and Welfare) Regulations 2006**, (see HSE ACoP L54 'Managing Construction Health and Safety', The **Workplace (Health, Safety and Welfare) Regulations 1992**;

The Personal Protective Equipment at Work Regulations 1992, (see HSE ACoP 'Personal Protective Equipment at Work, ISBN 0 11 886334 7);

Safe work in confined spaces INDG 258;
<http://www.hse.gov.uk/pubns/indg258.pdf>

Working with sewage, the Health Hazards. A guide for employees INDG 197;
<http://www.hse.gov.uk/pubns/indg197.pdf>

Working with sewage, the Health Hazards. A guide for employers INDG 198;
<http://www.hse.gov.uk/pubns/indg198.htm>

Leptospirosis - are you at risk? IND(G)84L;
<http://www.hse.gov.uk/pubns/indg84.pdf>

A short guide to the Personal Protective Equipment at Work Regulations IND(G)174L; <http://www.hse.gov.uk/pubns/indg174.pdf>

Provision and Use of Work Equipment Regulations 1998;

Workplace (Health, Safety and Welfare) Regulations 1992.