# No. Procedural Requirement for Confined Space 37 Safe Entry

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### Note:

- 1. This Procedural Requirement applies from 30 June 2013.
- 2. Revision 1 of this Procedural Requirement applies from 1 January 2015.

# 1 Objective

This procedural requirement contains the minimum requirements that Societies shall prescribe to help keep surveyors safe when conducting confined space entry. Societies are free to take measures beyond those required in this document, but shall as a minimum prescribe the requirements contained in this document and that they meet any relevant occupational safety and health legislative requirements in place at locations where work is conducted.

IACS recommendation 72 can be referred to for further guidance on confined space safe entry practice.

### 2 Definitions

### 2.1 Confined Space

Confined Space means a space that has any of the following characteristics:

- Limited openings for entry and exit
- Unfavourable natural ventilation
- Not intended for continuous worker occupancy

It may include, but is not limited to: boilers, pressure vessels, cargo spaces (cargo holds, or cargo tanks), cargo space stairways, ballast tanks, double bottoms, double hull spaces, fuel oil tanks, lube oil tanks, sewage-tanks, pump-rooms, compressor rooms, cofferdams, void spaces, duct keels, inter-barrier spaces, engine crankcases, excavations and pits.

# 2.2 Confined Space Entry (CSE)

Confined Space Entry is the process of entering, working in and exiting a confined space.

### 2.3 Competent Person

Competent person means a person with sufficient theoretical knowledge and practical experience to make an informed assessment of the likelihood of oxygen deficient/enriched or a dangerous atmosphere being present or subsequently arising in the space. Competent person must be trained and qualified in the hazards of Confined Spaces and in use of atmospheric monitoring devices. The Competent Person role may be performed by a Marine Chemist.

# 2.4 Responsible Person

Responsible Person means a person authorised to permit entry to a confined space and having sufficient knowledge of the procedure to be followed and other activities that are being undertaken that could impact on the safety of those in a confined space.

### 2.5 Attendant

Attendant is a person who is suitably trained and responsible for maintaining a watch over those entering the confined space, for maintaining communications with those inside the space and for initiating the emergency procedures in the event of an incident occurring.

#### 2.6 Marine Chemist

A Marine Chemist is a person holding a valid and suitably recognised qualification as a marine chemist or equivalent.

### 2.7 Adjacent Space

An adjacent space is any space bordering the confined space in any directions, including all points of contact, corners, diagonals, decks, tank tops and bulkheads.

### 2.8 Toxic Product

A Toxic Product means any chemical liquid, gas or solid material, which can give toxic vapour and which is assigned with suffix "T" in column "k" of table given in Chapter 17 of IBC Code, or assigned with suffix "T" in column "f" of table given in Chapter 19 of IGC Code, or classified as a Toxic Substance (Class/Division 6.1) within the part 2 of IMDG Code, or any other product which has a toxic symbol in the data sheet or is hazard classified as a toxic.

### 2.9 Surveyor

For the purpose of this Procedural Requirement a Surveyor is any person employed by the classification society conducting activities within a confined space on behalf of this classification society.

#### 2.10 Permit to Enter/Permit to Work

A Permit to Enter or Permit to Work is a documented authorisation that has been signed and dated, including time of issue by the Responsible Person, which states that the space has been tested by a Competent Person and that the space is safe for entry; what precautions, equipment etc. are required and what works is to be done.

### 3 Requirements

The requirements are categorised in three groups.

### 3.1 Training

- 3.1.1 All surveyors who are expected to enter and work in confined spaces shall be trained in Occupational Safety and Health requirements for such activities. This training shall include:
- 3.1.1.1 Recognising a confined space
- 3.1.1.2 Role of the Competent Person, Responsible Person, Attendant and Marine Chemist
- 3.1.1.3 How to recognise the hazards and manage the risks associated with Confined Space Entries
- 3.1.1.4 Permit to Work (PTW) systems/control procedures at the workplace
- 3.1.1.5 Requirements for atmosphere testing and the interpretation of their results
- 3.1.1.6 Use of personal multi gas meters
- 3.1.1.7 Access, exit and safe working requirements

3.1.1.8 Emergency arrangements

3.1.2 Competency in the areas covered by the training identified in 3.1.1 shall be periodically assessed, either as part of activity monitoring or some other suitable means. The maximum period between these assessments of competency is 3 years. Appropriate refresher training shall be provided as determined necessary from the competency assessment. The delivery mechanism for this refresher training is for the individual societies to determine.

### 3.2 Confined Space Entry Procedures

Societies shall have documented procedures that cover the following points:

- 3.2.1 Include in their procedures the minimum requirements for Surveyors entry into a confined space, as follows:
- 3.2.1.1 Safe entry procedures (such as entry permit, "safe for workers" certificate, "safe for hot work" certificate, etc.) are in place, current and are being followed
- 3.2.1.2 The Responsible and Competent Persons are identified
- 3.2.1.3 The access and exit arrangements to and within the confined space are considered safe. Where available, multiple entry and exit ways shall be opened
- 3.2.1.4 Communications arrangements are adequate
- 3.2.1.5 The confined space is adequately clean to allow safe working
- 3.2.1.6 The confined space lighting is adequate for entry/exit and to allow safe working in a confined space
- 3.2.1.7 The atmosphere has been demonstrated as being safe (safe limits are: atmospheric oxygen the range of 20.6% to 22% by volume, combustible gases less than 5% of lower explosive limit, toxics within acceptable limits)
- 3.2.1.8 Adequate ventilation arrangements are in place and functioning
- 3.2.1.9 Isolation of the confined space, as applicable, from other tanks, cargo spaces, pipes, etc. and of machinery in the space, is confirmed
- 3.2.1.10 Extreme temperature effects are adequately considered
- 3.2.1.11 Electrical equipment in the confined space is suitable and in acceptable condition
- 3.2.1.12 A dedicated Attendant is provided by the vessel's management or the management of the facility where the surveyor's activities are carried out for the complete duration of the time spent working in the confined space and the Attendant has suitable means of initiating emergency response
- 3.2.1.13 Adequate emergency response arrangements are in place
- 3.2.2 No surveyor shall be the first to enter a confined space, and they shall be accompanied at all times where the size of the space permits.

- 3.2.3 Surveyors shall not enter the confined space if they are required to wear breathing apparatus.
- 3.2.4 Surveyor shall not enter the confined space if the surrounding noise can adversely impact effective communication.
- 3.2.5 Surveyor shall not enter the confined space if a toxic product is contained in an adjacent space, until the following is carried out:
- 3.2.5.1 A risk assessment is completed by the vessel's Management Company and the risk is mitigated.
- 3.2.5.2 All identified controls are confirmed in place prior to tank entry.
- 3.2.6 No surveyor shall be part of a rescue team.
- 3.2.7 Surveyors shall immediately leave a confined space, by the nearest safe exit, if any alarms sound, or any physical impairment or distress is experienced by the surveyor.
- 3.2.8 If any of minimum requirements addressed in 3.2.1 through 3.2.7 are not complied with or in any other situation where the surveyor has a valid concern over the safety of the confined space, he/she shall refuse to enter the confined space.
- 3.2.9 The points addressed in 3.2.1 through 3.2.8 above shall be considered as part of survey planning and reviewed as changes occur during any Confined Space Entry.

# 3.3 Equipment for Surveyors Entering a Confined Space

- 3.3.1 The following minimum set of Personal Protective Equipment shall be made available by the society to surveyors for conducting a Confined Space Entry:
- 3.3.1.1 Protective clothing
- 3.3.1.2 Safety shoes/boots
- 3.3.1.3 Hard hat
- 3.3.1.4 Work gloves
- 3.3.1.5 Protective glasses and/or goggles
- 3.3.1.6 Ear defenders and/or ear plugs
- 3.3.1.7 An individual multi gas meter, in good working order, serviced and calibrated as per the manufacturer's instructions
- 3.3.1.8 A flashlight, appropriate to the nature of the confined space to be entered, and in good working order
- 3.3.2 The surveyor must always use the necessary personal protective equipment according to the specific conditions and the survey being carried out.

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