

CIC – Crew Familiarization for Enclosed Space Entry

CIC Additional Instructions

The purpose of the Crew Familiarization for Enclosed Space Entry Concentrated Inspection Campaign (CIC) is to ensure effective procedures and measures are in place to safeguard the seafarers who are serving on board ships. The CIC questions relate to SOLAS, however the International Safety Management Code (ISM), Chapter 9 of SOLAS is referred to in the guidance notes.

The International Safety Management Code (ISM) means the International Management Code for the Safe Operation of Ships and for Pollution Prevention as adopted by the Assembly, as may be amended by the Organization.

The 2015 CIC applies to ALL ships.

These guidelines have been prepared to assist Port State Control Officers (PSCOs) in conducting their inspections under this CIC. It is expected that the PSCO should already be familiar with the relevant sections of the applicable conventions and IMO recommendations.

The guidelines are not intended to be a definitive check list. The PSCO should also use his or her professional judgment, and knowledge of the convention requirements in conducting the inspection and eliciting responses to the questions.

A ship should only be subject to one inspection under this CIC during the period of the campaign (1 September to 30 November 2015). PSCOs should check Port State Control (PSC) records within APCIS to determine whether the CIC has been previously conducted on the ship during the CIC period.

Purpose

The purpose of this CIC is to get a detailed insight of the compliance with the relevant Conventions/Regulations as applicable. It is strongly recommended that PSCOs read the guidance notes.

The following guidance is provided to assist the PSCOs in checking all aspects of compliance with the questions on Crew Familiarization for Enclosed Space entry during a PSC Inspection. In addition to the guidance, PSCOs should refer to the following documents

- SOLAS (including SOLAS 2013 Amendment/Chapter III/Regulation 19, effective implementation date 01/01/2015).
- MARPOL
- STCW

In arriving at a “Yes” or “No” answer to each of the 10 questions the following point needs to be considered.

- Should a “No” be answered, a deficiency using the appropriate deficiency code as listed on the checklist shall be issued on Form B for the PSC inspection, unless indicated in this guidance.

Objective

The objective of this CIC is to:

- ensure that there is compliance with the requirements of the SOLAS and STCW Conventions as applicable
- ensure that the Master, Officers and Crew are familiar with relevant equipment and have received training in carrying out their duties
- raise safety awareness among the crew serving on board
- ensure that ship’s crew identify and understand the hazards associated with entry into enclosed spaces.

Questionnaire Guidance

Question 1	
Are there measures in place to test the atmosphere of an enclosed space to confirm it is safe to enter?	
<p>There is no mandatory requirement <i>at present</i> for all ships to carry instruments for measuring the atmosphere in enclosed spaces (Note 1). However where such equipment is provided the crew should be familiar with its use.</p> <p>1. If on-board testing equipment IS provided, the instruments must:</p> <ul style="list-style-type: none"> a) Be suitable for measuring the specific gases and vapours expected to be encountered in the appropriate concentration ranges b) Be in good working order and correctly calibrated c) Be serviced in accordance with the manufacturer’s instructions. <p>The PSCO should:</p> <ul style="list-style-type: none"> a) Verify by inspection that the equipment is available. b) Verify by questioning and inspection that the testing equipment is suitable for determining the acceptable levels of oxygen, and flammable or toxic gases i.e. it is capable of measuring these particular gases in the required ranges. c) Verify from inspection of records that the instruments have been calibrated for the correct ranges and that the calibration is current, and that the instruments have been serviced in accordance with the manufacturer’s instructions. d) Verify by demonstration that the instruments are in working order¹. <p>If the testing equipment is unsuitable, is not working or not correctly calibrated, or has not been serviced as required, then the question should be answered with a NO, <u>but no deficiency should be issued</u>.</p> <p>2. If on-board equipment is NOT provided, the PSCO should check that other suitable measures are in place before enclosed spaces are entered. These could include, for example:</p> <ul style="list-style-type: none"> a) Use of shore-based personnel for testing atmosphere in enclosed spaces b) On-board procedures that all entries are only undertaken by personnel wearing suitable breathing equipment <p>The PSCO should look for evidence of such measures being implemented and assess their adequacy. If no measures are in place or inadequate then a deficiency may be issued under the ISM Code.</p> <p>Note 1:</p> <p><i>The requirement for ships to carry atmosphere testing instruments for enclosed spaces will become mandatory from 1 July 2016 (Chapter XI-1, new regulation 7). Circular MSC.1/Circ. 1477 provides guidance on selection of such instruments.</i></p>	
Convention Reference:	SOLAS Chapter III, Regulation 19.3.6.2.3
Deficiency Code:	15109

¹ Revised recommendations for entering enclosed spaces aboard ships – Resolution A.1050(27) adopted 30 November 2011

Nature of Defect:	Instruments not available or otherwise not meeting requirements
Suggested Action Taken Code:	18 (only for Tokyo MoU)

Question 2	
<p>Are crew members responsible for testing the atmosphere in enclosed spaces trained in the use of the equipment referred to in Question 1?</p>	
<p><i>Where on-board equipment is NOT provided for use by crew to test atmospheres in enclosed spaces, this question should be answered as "N/A" (NOT APPLICABLE).</i></p> <p>Where on-board equipment IS provided and used by crew to test atmospheres in enclosed spaces, the crew members responsible for testing should be trained in the correct use and the limitations of the testing equipment and be able to demonstrate that they can use it competently. In particular they should be aware that oxygen, flammable or toxic gas or vapour concentrations may not be uniform throughout the space and it may not be possible to measure concentrations throughout the entire space prior to entry.</p> <p>The PSCO should:</p> <ol style="list-style-type: none"> 1. Verify who are the persons responsible for determining that it is safe to enter enclosed spaces on the ship. 2. Verify, by questioning and inspection of records, whether those persons have been trained in the use of the testing equipment. 3. Verify, by questioning and demonstration, that those persons know how to use the equipment properly including any calibration prior to use. 4. Verify, by questioning, that those persons are aware of the particular hazards associated with the type of ship or cargo being carried e.g. oxygen-depleting cargoes and materials, and so are using the appropriate testing equipment and sampling techniques to determine whether the enclosed space is safe. 5. Verify by inspection that manufacturer's instructions are available for the testing equipment and by questioning that the persons responsible for using the equipment are familiar with those instructions. 6. Verify by inspection that the ship's procedures for enclosed space entry cover the use of testing equipment. 7. Verify by questioning that those persons are aware of the limitations of testing equipment and testing procedures when determining whether the atmosphere in the enclosed space and any adjacent space is safe for entry, and continues to be safe while any person is in that space². 	
Convention Reference:	SOLAS Chapter III, Regulation 19.4.2.5
Deficiency Code:	12106
Nature of Defect:	Crew responsible for testing atmosphere not trained in accordance with requirements.
Suggested Action Taken Code:	17 (only for Tokyo MoU)

² Revised recommendations for entering enclosed spaces aboard ships – Resolution A.1050(27) adopted 30 November 2011

Question 3	
<p>Are the crew members familiar with the arrangements of the ship, as well as the location and operation of any on-board safety systems or appliances that they may be called upon to use for enclosed space entry?</p>	
<p><u>Items to check:</u></p> <p>Check that crew members:</p> <ul style="list-style-type: none"> • Are aware of which spaces on the ship are identified as enclosed spaces for the purposes of entry as described in the on-board safety management system required under the International Safety Management Code - <i>all crew</i> • Are aware of the procedures for enclosed space entry that operate on the ship and are familiar with the entry permit system for access to such spaces. This should include communications procedures used when enclosed space entry is being undertaken - <i>all crew</i> • Are familiar with the location and use of safety equipment that may be used for enclosed space entry and rescue, such as ventilation, lifting and other personnel rescue equipment that may be required in an emergency, first aid and resuscitation equipment, gas testing equipment, fire extinguishers, breathing apparatus etc - <i>specifically designated crew</i> • Can carry out checks on breathing apparatus and correctly don the equipment – <i>specifically designated crew</i> <p>As there is the potential for fire or serious injury to occur during enclosed space operations, crew need to be familiar with the ship-wide emergency systems and equipment.</p> <p>In order to test safety systems and appliances that may be used in enclosed space entry, crew should have knowledge of both the location and operation of the equipment. Any lack of familiarity may indicate that testing has not been carried out or that onboard familiarization training (STCW Regulation I/14) has been ineffective or that drills have not been carried out.</p>	
Convention Reference:	SOLAS, Chapter II-2/Regulation 15.2.2
Deficiency Code:	07123
Nature of Defect:	Lack of familiarity
Suggested Action Taken Code:	<p>17</p> <p>Code 30 (detention) may be considered if the lack of familiarity can pose a danger to ship's personnel</p> <p>An ISM-related deficiency may be recorded</p>

Question 4	
<p>Are crew members responsible for enclosed space emergency duties familiar with those duties?</p>	
<p>Crew members with assigned emergency duties are required to be familiar with those duties before the voyage begins. The PSCO should consult the muster list required by SOLAS Chapter III/Regulation 37 which should show the duties assigned to different members of the crew in emergency situations.</p> <p>Individual crew members may be questioned on their assigned duties on the muster list and requested to demonstrate them to the PSCO. On a vessel with a large crew a sampling process may be undertaken.</p> <p>The PSCO should also identify those crew members with enclosed space emergency duties and confirm they are familiar with them. SOLAS does not specifically require enclosed space emergencies to be identified on the muster list but duties in the event of such an emergency should also be clearly assigned.</p> <ol style="list-style-type: none"> 1. Where emergency duties are not fully assigned on the muster list in accordance with SOLAS Chapter III/Regulation 37 or crew members are not familiar with their assigned duties, the question should be answered “NO” and a deficiency may be considered. 2. Where enclosed space emergency duties are not assigned on the muster list, the question should also be answered “NO” but no deficiency should be issued. 	
Convention Reference:	SOLAS 2013 Amendment Chapter III/Regulation 19
Deficiency Code:	04108
Nature of Defect:	Lack of familiarity
Suggested Action Taken Code:	<p>17</p> <p>Code 30 (detention) may be considered if the lack of familiarity can pose a danger to ship’s personnel</p> <p>An ISM-related deficiency may be recorded</p>

Question 5	
<p>Is the training manual available on board and its contents complete and customized to the ship?</p>	
<p>Crew members should be able to state where the training manual is located. The PSCO should be aware that the training manuals must be located in the following locations on-board:</p> <ul style="list-style-type: none"> • crew mess rooms • recreation rooms, or • in each crew cabin <p>The training manual, which may comprise several volumes, shall contain instructions and information, in easily understood terms and illustrated wherever possible, on safety equipment provided in the ship (ship specific) and should specifically address enclosed space entry. Any part of such information may be provided in the form of audio-visual aids in lieu of the manual.</p> <p>SOLAS does not specifically require the training manual to include instructions on enclosed space entry and emergencies, however it is anticipated that the training manual will address these matters.</p> <p>The training manual must be in the working language of the ship.</p> <ol style="list-style-type: none"> 1. Where the training manual does not fully address the requirements of SOLAS Chapter III/Regulation 35, or crew members do not know the location of the manual, the question should be answered “NO” and a deficiency may be considered. 2. Where the training manual does not include instructions on enclosed space entry and emergencies, the question should be answered “NO”, but no deficiency should be issued. 	
Convention Reference:	SOLAS 2006 Amendment Chapter III/Regulation 35
Deficiency Code:	11131
Nature of Defect:	Missing instructions, missing manual Not as required
Suggested Action Taken Code:	17 An ISM-related deficiency may be recorded

Question 6	
<p>Is there evidence on board that enclosed space entry and rescue drills are conducted in accordance with SOLAS Chapter III, Regulation 19³?</p>	
<p>3. A drill should be carried out (refer to Question 9) and the outcome of this question should be linked to the outcome of the drill. If the drill is not conducted in a safe manner (e.g. atmosphere not checked or personal protective equipment not used) and there are clear grounds for believing that drills are not planned and conducted in a safe manner, then a deficiency should be recorded.</p> <p>4. Enclosed space entry and rescue drills must include, as a minimum, all of the requirements specified in the referenced regulation.</p> <p>5. During the drill required by Question 9 the PSCO should verify that:</p> <ul style="list-style-type: none"> a) personal protective equipment required for entry was checked and used. b) communication equipment and procedures were checked and used. c) instruments for measuring the atmosphere in enclosed spaces were checked and used. d) rescue equipment and procedures were checked and used. e) instructions in first aid and resuscitation techniques were provided <p>6. A sample enclosed space entry permit is shown and completion of the permit prior to entry would provide evidence that pre-entry checks were carried out¹.</p>	
Convention Reference:	SOLAS Chapter III/Regulation 19.3.6.1, 19.3.6.2, 19.5
Deficiency Code:	04118.
Nature of Defect:	Lack of training, not as required
Suggested Action Taken Code:	<p>17</p> <p>Code 30 (detention) may be considered if the lack of training can pose a danger to ship's personnel.</p> <p>An ISM-related deficiency may be recorded</p>

³ Revised recommendations for entering enclosed spaces aboard ships – Resolution A.1050(27) adopted 30 November 2011

Question 7	
<p>Have the ship's crew participated in an enclosed space entry and rescue drill on board the ship at least once every two months in accordance with SOLAS Chapter III, Regulation 19.3.3?</p>	
<p>The frequency of drills for those with enclosed space entry responsibilities is specified as once every two months as a minimum. Dates when enclosed space entry and rescue drills are held are required to be recorded in the log, as is the case for musters, abandon ship and other emergency drills. When drills are not held at the appointed time, an entry shall be made in the log book stating why the drill was not conducted.</p> <p>The PSCO should:</p> <ul style="list-style-type: none"> a) Request records and review them to verify that enclosed space entry and rescue drills have been carried out as scheduled. b) Confirm who has assigned responsibilities for enclosed space entry and rescue drills (see question 2). They should confirm that those crew members have taken part in the drills conducted at the required frequency both by reference to the records and verifying directly with the crew members concerned⁴. 	
Convention Reference:	SOLAS 2013 Amendment Chapter III/Regulation 19
Deficiency Code:	04118
Nature of Defect:	Insufficient frequency, no recorded drills
Suggested Action Taken Code:	17 An ISM-related deficiency may be recorded

⁴ Revised recommendations for entering enclosed spaces aboard ships – Resolution A.1050(27) adopted 30 November 2011

Question 8

Are crew members responsible for enclosed space entry aware of the associated risks?

The atmosphere in any enclosed space may be oxygen-deficient or oxygen-enriched, and/or contain flammable and/or toxic gases or vapours. Such unsafe atmospheres could also subsequently occur in a space previously found to be safe. Unsafe atmospheres may also be present in spaces adjacent to those spaces where a hazard is known to be present.

Crew members responsible for enclosed space entry should know what the safe levels for oxygen, flammable and toxic vapours are. They should also be aware of the limitations of any testing that is carried out to verify safe conditions exist in the enclosed space and the need to continue to monitor the conditions for the duration of the entry⁵.

In addition every crew member should have been given instruction on the risks associated with entry into enclosed spaces.

Crew members should be able to identify areas on board that might normally be considered to be enclosed spaces such as tanks, cargo hatches, cargo access ways, void spaces, engine crankcases, scavenge spaces etc. and be aware of the need to implement safe entry procedures according to the on-board practices.

The PSCO should:

1. Verify that information on enclosed space entry for crew members with responsibilities for enclosed space entry and rescue is provided.
2. Verify that crew members with responsibilities for enclosed space entry and rescue are aware of what spaces have been identified as enclosed spaces and the risks associated with entry into those spaces (hazards may be different for different spaces).
3. Verify that crew members with responsibilities for enclosed space entry and rescue are aware that there is a procedure for safe entry into enclosed spaces.
4. Verify that crew members with responsibilities for enclosed space entry and rescue are familiar with the atmospheric limitations required to be confirmed prior to entry.
5. Verify that crew members with responsibilities for enclosed space entry and rescue are aware of factors that may result in oxygen deficiency in the enclosed spaces on their particular ship such as the internal structure of the space, the nature of cargo in the space, the effects of cargo residues and tank coatings.
6. Verify that crew members with responsibilities for enclosed space entry and rescue are aware that there may be a need to test for specific toxic contaminants such as benzene or hydrogen sulphide in some circumstances.
7. Verify that crew members with responsibilities for enclosed space entry and rescue are aware that unsafe atmospheres may also occur in spaces adjacent to those spaces where a hazard is known to be present and that this needs to be reflected in the procedures.

Convention Reference:	SOLAS 2013 Amendment/Chapter III/Regulation 19
Deficiency Code:	04118
Nature of Defect:	Lack of familiarity, lack of training.

⁵ Revised recommendations for entering enclosed spaces aboard ships – Resolution A.1050(27) adopted 30 November 2011

Suggested Action Taken Code:	17 Code 30 (detention) may be considered if the lack of training or familiarity can pose a danger to ship's personnel. An ISM-related deficiency may be recorded ⁶
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⁶ Revised recommendations for entering enclosed spaces aboard ships – Resolution A.1050(27) adopted 30 November 2011

Question 9

During the CIC, the PSCO is to observe an enclosed space entry and rescue drill. Did the drill comply with the requirements of SOLAS Chapter III, Regulation 19.3.6?

The PSCO is to request that a drill be conducted during the CIC. The purpose of the drill is to:

- demonstrate that the crew are familiar with the procedures for enclosed space entry and rescue
- verify that crew are able to conduct enclosed space entry and rescue drills competently and in a safe manner, in accordance with the recommendations of the IMO
- verify that crew can communicate effectively during both a planned entry and in an emergency situation.

The drill will serve to further confirm that the requirements for familiarization, training and instruction have been met. The drill is to be conducted in a safe area on the ship and in a safe manner.

IT MUST NOT BE IN AN ENCLOSED SPACE or any space which has been designated as such.

It is anticipated that the drill will take no longer than 20 minutes.

Prior to the drill being undertaken, a scenario for a planned enclosed space entry and subsequent rescue should be proposed by the crew and agreed with the PSCO that is specific to the ship. The scenario should reflect a designated enclosed space on the ship, and the hazards associated with entry into that particular space.

The PSCO should:

1. Verify that the proposed drill scenario is credible and realistic in relation to the ship in question.
2. Verify that those responsible for the drill can identify the specific hazards of the enclosed space, including but not limited to:
 - a) The atmosphere in the enclosed space
 - b) What testing is needed to confirm that entry is safe and will remain safe
 - c) Any limitations on the ability to confirm that conditions are safe
 - d) Any difficulties with access, or matters that may impede quick and effective rescue.
3. Verify that documented procedures are being followed, the prescribed safety briefings are given, and the required authorisations (permits) are completed and sign-offs are obtained. Those taking part should be identified on the appropriate checklists and authorisations.
4. Verify that personal protective equipment is available and correctly worn.
5. Verify that communications equipment is available and working correctly, and that communications procedures, including emergency signals, are agreed and tested prior to entry. This should include stationing a crew member at the entry point for the duration of the entry, confirmation of entry, monitoring of persons in the space and confirmation of exit.
6. Verify that equipment for testing the atmosphere is available and working, is suitable for the purpose for which it is being used, is correctly calibrated and has been serviced in accordance with the manufacturer's instructions (see also Question 1).
7. Verify that those crew members responsible for testing understand how to use the equipment and any limitations of the equipment (see also Question 2).
8. Verify what steps are taken to make the space safe if testing indicates that the atmosphere is not safe to enter.

Question 9	
<p>9. Verify that rescue equipment is in place, in good order and ready for use, and that those who have designated rescue responsibilities are trained in its use.</p> <p>10. Verify that at the end of the drill all the necessary records are completed and the 'enclosed space' secured⁷.</p>	
Convention Reference:	<ul style="list-style-type: none"> • SOLAS 2012 Amendment/Chapter V/Regulation 14 • SOLAS 2013 Amendment/Chapter III/Regulation 19
Deficiency Code:	04118
Nature of Defect:	Drill not conducted in accordance with the requirements of SOLAS
Suggested Action Taken Code:	<p>17</p> <p>Code 30 (detention) may be considered if the crew could not successfully conduct the drill or if there were significant failures identified during the drill that could pose a danger to persons during enclosed space entry.</p> <p>An ISM-related deficiency may be recorded</p>

⁷ Revised recommendations for entering enclosed spaces aboard ships – Resolution A.1050(27) adopted 30 November 2011.

Question 10

Is the ship detained as a result of a “NO” answer to any of the questions?

If the box “NO” is ticked off for questions marked with an * the ship may be considered for detention. The detail of any deficiencies should be appropriately entered on the PSC Report of Inspection – Form B and include the deficiency code as indicated in these guidelines.

Appendix 1: IMO Resolution A.1050(27) Appendix

A copy of the resolution is attached separately. The Resolution A.1050(27) is only a recommendation and no deficiency should be raised based on this Resolution.

The example of an enclosed space entry permit is taken from the above resolution.

APPENDIX		
EXAMPLE OF AN ENCLOSED SPACE ENTRY PERMIT		
<p>This permit relates to entry into any enclosed space and should be completed by the master or responsible person and by any persons entering the space, e.g. competent person and attendant.</p>		
GENERAL		
Location/name of enclosed space		
Reason for entry		
This permit is valid		Date
from: _____ hrs	to: _____ hrs	Date
(See Note 1)		
SECTION 1 – PRE-ENTRY PREPARATION		
(To be checked by the master or nominated responsible person)		
	Yes	No
• Has the space been thoroughly ventilated by mechanical means?	.....	.....
• Has the space been segregated by blanking off or isolating all connecting pipelines or valves and electrical power/equipment?	.....	.....
• Has the space been cleaned where necessary?	.....	.....
• Has the space been tested and found safe for entry? (See note 2)	.....	.....
• Pre-entry atmosphere test readings:		
- oxygen% vol (21%)*	By:	
- hydrocarbon% LFL (less than 1%)		
- toxic gases ppm (less than 50% OEL of the specific gas)	Time:	
	(See note 3)	
• Have arrangements been made for frequent atmosphere checks to be made while the space is occupied and after work breaks?	.....	.....
• Have arrangements been made for the space to be continuously ventilated throughout the period of occupation and during work breaks?.....	.....	.....
• Are access and illumination adequate?	.....	.....
<p>* Note that national requirements may determine the safe atmosphere range.</p>		

	Yes	No
• Is rescue and resuscitation equipment available for immediate use by the entrance to the space?	"	"
• Has an attendant been designated to be in constant attendance at the entrance to the space?	"	"
• Has the officer of the watch (bridge, engine-room, cargo control room) been advised of the planned entry?	"	"
• Has a system of communication between all parties been tested and emergency signals agreed?	"	"
• Are emergency and evacuation procedures established and understood by all personnel involved with the enclosed space entry?	"	"
• Is all equipment used in good working condition and inspected prior to entry?	"	"
• Are personnel properly clothed and equipped?	"	"

SECTION 2 – PRE-ENTRY CHECKS
(To be checked by each person entering the space)

	Yes	No
• I have received instructions or permission from the master or nominated responsible person to enter the enclosed space	"	"
• Section 1 of this permit has been satisfactorily completed by the master or nominated responsible person	"	"
• I have agreed and understand the communication procedures	"	"
• I have agreed upon a reporting interval of minutes	"	"
• Emergency and evacuation procedures have been agreed and are understood	"	"
• I am aware that the space must be vacated immediately in the event of ventilation failure or if atmosphere tests show a change from agreed safe criteria	"	"

SECTION 3 – BREATHING APPARATUS AND OTHER EQUIPMENT (To be checked jointly by the master or nominated responsible person and the person who is to enter the space)		
	Yes	No
• Those entering the space are familiar with any breathing apparatus to be used
• The breathing apparatus has been tested as follows:		
- gauge and capacity of air supply
- low pressure audible alarm if fitted
- face mask – under positive pressure and not leaking
• The means of communication has been tested and emergency signals agreed
• All personnel entering the space have been provided with rescue harnesses and, where practicable, lifelines

Signed upon completion of sections 1, 2 and 3 by:

Master or nominated responsible person Date Time

Attendant Date Time

Person entering the space Date Time

SECTION 4 – PERSONNEL ENTRY (To be completed by the responsible person supervising entry)	
Names	
Time in	Time out

SECTION 5 – COMPLETION OF JOB (To be completed by the responsible person supervising entry)		
• Job completed	Date	Time
• Space secured against entry	Date	Time
• The officer of the watch has been duly informed	Date	Time

Signed upon completion of sections 4 and 5 by:

Responsible person supervising entry Date Time

<p>THIS PERMIT IS RENDERED INVALID SHOULD VENTILATION OF THE SPACE STOP OR IF ANY OF THE CONDITIONS NOTED IN THE CHECKLIST CHANGE</p>
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Notes:

- 1 The permit should contain a clear indication as to its maximum period of validity.
 - 2 In order to obtain a representative cross-section of the space's atmosphere, samples should be taken from several levels and through as many openings as possible. Ventilation should be stopped for about 10 minutes before the pre-entry atmosphere tests are taken.
 - 3 Tests for specific toxic contaminants, such as benzene or hydrogen sulphide, should be undertaken depending on the nature of the previous contents of the space.
-