PACIFIC MARINE SERVICES

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P.M.S /C014/15	**PMS /E.S.E.R.D/001/UAE**	Managing Company	**XXXX**
Date of implement	**01 January 2015**	Identification Number	**XXXX**
Name of Vessel	**XXX**	Company Approval No.	**XXXX**
Flag	**TOGO**	Issuing Report of SEEMP	**XXXX**
Classification Society	**P.M.S**	Body which carrying out the checked	**XXXX**

(Guidelines for Ships of the SOLAS Regulation 19 requires enclosed space entry and rescue drills need to implement on the vessels)

Background.

The amended regulation has been adopted by MSC.350(92) and requires crew members with enclosed space entry or rescue responsibilities to participate in an enclosed space entry and rescue drill at least once every two months. The requirements are to comply Enclosed space entry and rescue drills (SOLAS III/19 etc.) To require that crew members with enclosed space entry or rescue responsibilities shall participate in an enclosed space entry and rescue drill to be held on board the ship at least once every two months.
and must ensure that the shipboard drill programme has been amended to include the new drill in the forthcoming Safety Management implemented from January 1, 2015.

INTRODUCTION

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.

DEFINITIONS

- **Enclosed space means a space which has any of the following characteristics :**
  - Limited openings for entry and exit;
  - Inadequate ventilation;
  - Is not designed for continuous worker occupancy,

and includes, but is not limited to, cargo spaces, double bottoms, fuel tanks, ballast tanks, cargo pump-rooms, cargo compressor rooms, cofferdams, chain lockers, void spaces, duct keels, inter-barrier spaces, boilers, engine crank cases, engine scavenge air receivers, sewage tanks, and adjacent connected spaces. This list is not exhaustive and a list should be produced on a ship-by-ship basis to identify enclosed spaces.

SAFETY MANAGEMENT FOR ENTRY INTO ENCLOSED SPACES.

1- The company should ensure that the procedures for entering enclosed spaces are included among the key shipboard operations concerning the safety of the personnel and the ship, in accordance with paragraph 7 of the International Safety Management (ISM) Code.

2- The company should elaborate a procedural implementation scheme which provides for training in the use of atmospheric testing equipment in such spaces and schedule of regular on shipboard drills for crews.

3- Crew members should be trained, as appropriate, in enclosed space safety, including familiarization with onboard procedures for recognizing, evaluating and controlling hazards associated with entry into enclosed spaces.

4- Internal audits by the company and external audits by the Administration of the ship's safety management system should verify that the established procedures are complied with in practice and are consistent with the safety strategy referred to in paragraph 1.

5- The company should ensure that a risk assessment is conducted to identify all enclosed spaces on board the ship. This risk assessment should be periodically revisited to ensure its continued validity.

6- The procedures to be followed for testing the atmosphere in the space and for entry should be decided on the basis of the preliminary assessment.

- These will depend on whether the preliminary assessment shows that :
  1- There is minimal risk to the health or life of personnel entering the space;
  2- There is no immediate risk to health or life but a risk could arise during the course of work in the space;
  3- a risk to health or life is identified.

GENERAL PRECAUTIONS

1- Entry doors & hatches leading to enclosed spaces should at all times be secured against entry, when entry is not required.

2- The master or the responsible person should determine that it is safe to enter an enclosed space by ensuring that :

- The master of the vessel to prepare a plan defines enclosed space entry to his ship and is posted on the ship.
- must to be potential hazards have been identified in the assessment and as far as possible isolated or made safe;
- the space has been thoroughly ventilated by natural or mechanical means to remove any toxic or flammable gases and to ensure an adequate level of oxygen throughout the space;
- the atmosphere of the space has been tested as appropriate with properly calibrated instruments to ascertain acceptable levels of oxygen and acceptable levels of flammable or toxic vapours;
- the space has been secured for entry and properly illuminated;
- a suitable system of communication between all parties for use during entry has been agreed and tested;
- an attendant has been instructed to remain at the entrance to the space whilst it is occupied;
- rescue and resuscitation equipment has been positioned ready for use at the entrance to the space and rescue arrangements have been agreed;
- All equipment used in connection with entry should be in good working condition and inspected prior to use.
- All the crew must they knowledge of personal protective equipment required for entry.

PRECAUTIONS DURING ENTRY

1- Persons entering enclosed spaces should be provided with calibrated and tested multi-gas detectors that monitor the levels of oxygen, carbon monoxide and other gases as appropriate.

2- Ventilation should continue during the period that the space is occupied . Before re-entry after a break, the atmosphere should be re-tested. In the event of failure of the ventilation system, any persons in the space should leave immediately.

3- In the event of an emergency, under no circumstances should the attending crew member enter the space for helping and he situation has been evaluated to ensure the safety of those entering the space to undertake rescue operations.

4- Spaces that have not been tested should be considered unsafe for persons to enter.

5- Suitable breathing apparatus, or self-contained type, should always be valide for use.

6- Must to take action on the any space containing dangerous goods may put at risk the health or life of any person entering it.

7- for the tankers a advice to operators and crews of ships engaged in the bulk carriage of oil, chemicals and liquefied gases, there are specialist international safety guides. Information in the guides on enclosed space entry amplifies these recommendations and should be used as the basis for preparing entry plans.

8- On ships carrying solid bulk cargoes, dangerous atmospheres may develop in cargo spaces and adjacent spaces. The dangers may include flammability, toxicity, oxygen depletion or self-heating, reference should be made to the International Maritime Solid Bulk Cargoes (IMSBC) Code and (IMDG).

The recognized organizations are all equipped to assist with drawing up plans. Plans do not require Class or Flag approval. To assist owners for the SOLAS has prepared a set of guidelines on the development of a enclosed space entry and rescue drills plan.
The guidance is in IMO Resolution MSC.350(92) - Regulation 19, and the text of this guidance is attached in Circular for the P.M.S/C014/15 on www.pmsclass.org

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Actions required.
Owners are advised to start implement plan for enclosed space entry and rescue drills. for each of their ships at an early date so that there are no delays in the next ISM audit .

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

To require that company should ensure that each ship is manned appropriately and that company should periodically verify whether all those undertaking delegated

SOLAS RESOLUTION MSC.350(92) - Regulation 19 –

related tasks are acting in conformity with the Company's responsibilities under the Code.

Application:
- on and after 1 January 2015

ANNEX 2
RESOLUTION MSC.350(92)
(Adopted on 21 June 2013)

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

CHAPTER III
LIFE-SAVING APPLIANCES AND ARRANGEMENTS

Part B
Requirements for ships and life-saving appliances

Regulation 19 – Emergency training and drills

1- The existing text of paragraphs 2.2 and 2.3 is replaced with the following:

"2.2 - On a ship engaged on a voyage where passengers are scheduled to be on board for more than 24 h, musters of newly-embarked passengers shall take place prior to or immediately upon departure. Passengers shall be instructed in the use of the lifejackets and the action to take in an emergency.

2.3 - Whenever new passengers embark, a passenger safety briefing shall be given immediately before departure, or immediately after departure. The briefing shall include the instructions required by regulations 8.2 and 8.4, and shall be made by means of an announcement, in one or more languages likely to be understood by the passengers. The announcement shall be made on the ship's public address system, or by other equivalent means likely to be heard at least by the passengers who have not yet heard it during the voyage. The briefing may be included in the muster required by paragraph 2.2. Information cards or posters or video programmes displayed on ships video displays may be used to supplement the briefing, but may not be used to replace the announcement."

2- After existing paragraph 3.2, a new paragraph 3.3 is inserted as follows:

"3.3 - Crew members with enclosed space entry or rescue responsibilities shall participate in an enclosed space entry and rescue drill to be held on board the ship at least once every two months."

3- Existing sections 3.3 and 3.4 are renumbered as 3.4 and 3.5, respectively. In the renumbered paragraph 3.4.2, the reference "paragraph 3.3.1.5" is replaced by the reference "paragraph 3.4.1.5"; and in the renumbered paragraph 3.4.3, the reference "paragraphs 3.3.4 and 3.3.5" is replaced by the reference "paragraphs 3.4.4 and 3.4.5"

4- After the renumbered section 3.5, the following new section is added:

"3.6 - Enclosed space entry and rescue drills.

3.6.1 - Enclosed space entry and rescue drills should be planned and conducted in a safe manner, taking into account, as appropriate, the guidance provided in the recommendations developed by the Organization*.

3.6.2 - Each enclosed space entry and rescue drill shall include:

1- checking and use of personal protective equipment required for entry;

2- checking and use of communication equipment and procedures;

3- checking and use of instruments for measuring the atmosphere in enclosed spaces;

4- checking and use of rescue equipment and procedures;

5- instructions in first aid and resuscitation techniques."

5- In paragraph 4.2, at the end of subparagraph .3, the word "and" is deleted; at the end of subparagraph .4, the period "." is replaced by the word "; and"; and after subparagraph .4, the following new subparagraph is added:

".5 - risks associated with enclosed spaces and onboard procedures for safe entry into such spaces which should take into account, as appropriate, the guidance provided in recommendations developed by the Organization*.

6- In paragraph 5, after the words "fire drills,", the words "enclosed space entry and rescue drills," are inserted.

CHAPTER V
SAFETY OF NAVIGATION

Regulation 19 – Carriage requirements for shipborne navigational systems and equipment

7- In subparagraph 1.2.1, the words "1.2.2 and 1.2.3" are replaced with the words "1.2.2, 1.2.3 and 1.2.4".

8- In subparagraph 1.2.2, the word "and" at the end of the subparagraph is deleted and in subparagraph 1.2.3, the full stop "." is replaced with the word "; and".

9- After the existing subparagraph 1.2.3, the following new subparagraph is added:

".4 - be fitted with the system required in paragraph 2.2.3, as follows:

.1 passenger ships irrespective of size, not later than the first survey* after 1 January 2016;

.2 cargo ships of 3,000 gross tonnage and upwards, not later than the first survey* after 1 January 2016;

.3 cargo ships of 500 gross tonnage and upwards but less than 3,000 gross tonnage, not later than the first survey* after 1 January 2017; and

.4 cargo ships of 150 gross tonnage and upwards but less than 500 gross tonnage, not later than the first survey* after 1 January 2018.

The bridge navigational watch alarm system shall be in operation whenever the ship is underway at sea.

The provisions of paragraph 2.2.4 shall also apply to ships constructed before 1 July 2002.

10- After the new subparagraph 1.2.4, the following new paragraph is added:

"1.3 - Administrations may exempt ships from the application of the requirement of paragraph 1.2.4 when such ships will be taken permanently out of service within two years after the implementation date specified in subparagraphs 1.2.4.1 to 1.2.4.4."

CHAPTER XI-1
SPECIAL MEASURES TO ENHANCE MARITIME SAFETY

Regulation 1 – Authorization of recognized organizations

11- The existing text of regulation 1 is replaced with the following:

"The Administration shall authorize organizations, referred to in regulation I/6, including classification societies, in accordance with the provisions of the present Convention and with the Code for Recognized Organizations (RO Code), consisting of part 1 and part 2 (the provisions of which shall be treated as mandatory) and part 3 (the provisions of which shall be treated as recommendatory), as adopted by the Organization by resolution MSC.349(92), as may be amended by the Organization, provided that:

(a) amendments to part 1 and part 2 of the RO Code are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention;

(b) amendments to part 3 of the RO Code are adopted by the Maritime Safety Committee in accordance with its Rules of Procedure; and

(c) any amendments adopted by the Maritime Safety Committee and the Marine Environment Protection Committee are identical and come into force or take effect at the same time, as appropriate."

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EXAMPLE OF AN ENCLOSED SPACE ENTRY PERMIT

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.

Location/name of enclosed space

Reason for entry : XXXXXXXX

This permit is valid - **FROM:** 1420 hrs / Date : 19/2/2015 **TO:** 1420 hrs / Date : 19/2/2015

SECTION 1 – PRE-ENTRY PREPARATION

(To be checked by the master or nominated responsible person)

REQUIREMENTS TO CHECKED	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?		
· Have arrangements been made for frequent atmosphere checks to be made while the space is occupied and after work breaks?		
· Are access and illumination adequate?		
· 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?		

For entry purposes, steady readings of all of the following should be obtained:

- Pre-entry atmosphere test readings: - oxygen ..... % vol (21%)* (21% oxygen by volume by oxygen content meter;)
- hydrocarbon ..... % LFL (less than 1%)
- toxic gases ..... ppm (less than 50% OEL of the specific gas)

(Not more than 50% of the occupational exposure limit (OEL)* of any toxic vapours and gases).

By: Time:

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

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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 .....

THIS PERMIT IS RENDERED INVALID SHOULD VENTILATION OF THE SPACE STOP OR IF ANY OF THE CONDITIONS NOTED IN THE CHECKLIST CHANGE

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.