Enclosed space familiarization programme

Name of vessel: ***Date:***

1. **List of enclosed spaces on board (Please identify ship specific enclosed space and include in the list)**

S.NO	LIST OF ENCLOSED SPACES ON BOARD
1	Cargo holds / access ways / ladders
2	Ballast tanks (Top side / wing / DB / peak tanks)
3	Void spaces
4	Pipe ducts /Duct keels/ Inter barrier spaces
5	Coffer dams
6	Chain lockers
7	Boiler furnaces and uptakes/ Boiler air spaces and heaters / steam side of boiler
8	Main engine crank case
9	Fuel oil tanks
10	Engine exhaust and scavenge receiver
11	Sewage tanks
12	Fresh water tanks
13	Engine room bilge tanks
14	Lubricating oil storage tank
15	Steam side of turbines
16	Waste oil holding tanks
17	Adjacent connected spaces

Note:

- **All enclosed space shall be marked/stenciled onboard to prevent accidental or unauthorized entry (ensure that adequate signs and barriers are provided against all openings)**
- **All staff to be familiar with the location of enclosed spaces on board**

Following to be inserted in SOLAS training manuals:

- **List of all enclosed spaces identified on board**
- **Copy of Instruction Manual of Gas meter**
- **Generic Risk assessment for entering enclosed space (Refer bassnet)**

2. **Company procedures for enclosed space**

- **Refer HSE procedures manual - 4.10. ENCLOSED SPACE ENTRY**

- **All ship staff shall read and understand the chapter on enclosed space entry**

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3. Enclosed space permit

- **Enclosed space permit to be completed and strictly complied with prior entry into any enclosed space. Refer Permit to work form 3.3.1.**
- **Enclosed space permit to be signed by each person entering the space.**
- **Even during drills, permit has to be completed**

4. Risk assessment / Tool box meeting

Risk assessment / tool box meeting to be prepared prior entering any enclosed space.
Crew members responsible for enclosed space entry shall be made aware of the associated risks

a) Oxygen depletion due to corrosion etc or enriched atmosphere
b) Flammable atmosphere /Hydrocarbon vapors
c) Toxic gases
d) Products of inert gas
e) Risk of physical harm due to difficult access and working conditions
f) Weak metals/ sharp edges of rusted tank structures
g) Slick / wet surfaces & tripping hazards
h) Weak structures may cause personnel to trip and fall
i) Extreme temperature (hot or cold)
j) Engulfment hazard (such as grain, coal, sand, gypsum, or similar material)
k) Extreme noise
l) Falling objects
m) Potential for rapidly changing atmosphere
n) Unsafe atmospheres may also occur in spaces adjacent to those spaces where a hazard is known to be present
o) Fumigation additives

Crew should be aware that oxygen, flammable or toxic gas or vapor concentrations may not be uniform throughout the space and it may not be possible to measure concentrations throughout the entire space prior to entry

5. List of portable gas equipment / Personal gas detector on board

S.NO	MODEL	MAKE
1		
2		

Note:

- **Gas equipment to be in good working order and calibrated as per maker instructions**
- **All deck officers and engineers to be trained in use and calibration of gas equipment and training records to be maintained.**
- **Sampling hoses shall be blown through and in good order and be of sufficient length to reach bottom of enclosed space.**
- **All crew members are aware of the storage location of gas meters & monitors**
- **All Officers are to be trained in the correct cleaning, storage and maintenance of this life saving equipment**

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6. List of rescue equipment on board (Please identify ship specific equipment)

S.NO	EQUIPMENT	QUANTITY	LOCATION
1	Rescue harness		
2	Stretcher		
3	SCBA sets		
4	Lifeline		
5	Portable lights		
6	Ventilation fans /blowers		
7	Flash lights		
8	Tripod		
9	Blocks /pulleys		
10	Ropes		
11	EEBD		
12	Communication equipment (Walkie talkies)		
13	Oxygen bottle		
14	Resuscitator		
15	First aid kit		
16	PPE (Helmet/boiler suits/safety shoes/gloves)		

Crew members shall be 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

Breathing apparatus including all spare SCBA bottles shall be kept fully charged and all other rescue equipment kept in readiness and in good order.

SCBA bottles must be refilled after use and BEFORE STOWAGE back in the store.

7. Enclosed space drill requirements

Following drills shall be conducted every 2 months

a. **Enclosed space entry drill**
b. **Enclosed space rescue drill**

Drill shall include the following as per SOLAS:

- **Checking and use of personal protective equipment required for entry**
- **Checking the use of communication equipment and procedures including emergency signals**
- **Checking and use of instruments for measuring the atmosphere in enclosed spaces including the suitability, including the length, of sampling hoses of portable detectors for gas measurement at all levels in double bottom spaces**
- **Checking and use of rescue equipment and procedures**
- **Instructions in first aid and resuscitation techniques.**
- **Instruction on risks associated with enclosed spaces and on board procedures for safe entry into such spaces.**

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Drill should not take longer than 20 minutes

Crew members responsible for enclosed space emergency duties shall be familiar with duties as per Muster list.

Following the drill, the crew members on board shall be competent and trained in enclosed space hazard recognition, evaluation, measurement, control and elimination of hazards associate with the entry into enclosed space

Note:

Crew are always reminded that they are to stop any unsafe practice that they witness.

More seafarers are killed in Enclosed spaces than by any other single cause at sea EVERY YEAR.

More people die from poorly attempted rescues than from the initial seafarers' collapsing (UK P and I club statistics)

A disturbing statistic is also the number of SENIOR OFFICERS killed every year in enclosed spaces

Please ensure every person aboard is aware that they are to ensure the enclosed space entry procedure is correct before any attempt to enter an enclosed space. If anyone has ANY DOUBT – **STOP THE OPERATION AND CHECK.** Everyone has responsibility to ensure the operation only proceeds if it is 100% safe to do so.

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