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| EXERCISES |
| VESSEL SAFETY MANUAL HOT WORK |

HOT WORK

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| Written By | Verified By | Approved)RU |
| NAME AND SURNAME | NAME AND SURNAME | NAME AND SURNAME |
| Safety & Quality Department Manager | Technical Department Director | Managing Board President |

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| EXERCISES |
| VESSEL SAFETY MANUAL |
| HOT WORK |

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1. PURPOSE

To ensure the safety of personnel performing hot work on board the ship.

2. RESPONSIBILITY

It is responsibility of the Master to authorize "Hot Work", instruct and supervise the officers and ratings involved.

An officer shall be assigned the responsibility to supervise the work being carried out and ensuring that all necessary precautions are taken.

3. DESCRIPTION OF PROCEDURE

3.1. General

Work where open flame is used and sparks or other sources of ignition could lead to fire or explosion shall be considered as "Hot Work".

A permit to perform hot work must be issued by the Master. Prior to issuing the permit and carrying out any work classified as "hot", an assessment of the job particulars must be undertaken.

"Hot work" shall not be performed onboard the vessel without prior approval and written permit from the Master. When planning to work on deck or in the holds, consideration shall be given to the cargo carried.

For tanker vessels, hot work shall not be performed on the deck unless in case of emergency.

When hot work outside the vessel's workshop is considered necessary, the Company shall be notified prior to being undertaken. All safety precautions shall be planned and communicated to the office. Reference should be made to the ISGOTT hot work flow chart Fig.2-1.

An office team, formed by the DPA and departments managers, shall review and assess the request for hot work, including the safety precautions proposed, and inform the vessel accordingly. Alternate solutions shall always be sought with the hot work being the last resort.

In case that hot work is intended to be performed in the enclosed space or engine room referenced procedures [Entry into Enclosed Space](#), [Work in Enclosed Space](#), [Work in the Engine Room](#), [Protective Clothing & Equipment](#) must be followed.

3.2. Hot work permit

A [Hot Work Permit](#) is used to ensure the safety hazards are identified and that all measures have been taken to eliminate them. The permit identifies possible hazards and eventual precautions to be taken and lists the sequence of operations and precautions. It does not make the job safe by itself, but its strict observance minimizes the possibility of an accident happening.

3.3. Permit parameters

1. The officer experienced in the work involved and thoroughly familiar with the relevant hazards (i.e. Master, Chief Officer, Chief Engineer or Second engineer) has to perform the assessment of the situation.
2. The information given in the permit shall be precise, detailed and accurate. <it should state:

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- (a) The work location
 - (b) Details of the work to be done
 - (c) The nature and the results of any preliminary tests undertaken
 - (d) Measures taken to make the job safe
3. The permit should specify the period of its validity, which should not exceed 24 hours. The one exception to the 24 hour rule is for a permit issued to cover hot work performed in the engine room workshop, when permit can valid continuously, taking account that all safety precautions in the workshop are established and remain unchanged.
 4. The permit is valid only for the purpose issued for.
 5. Before signing the permit, the responsible officer should check that all its requirements have been satisfied and that approval to proceed with the work has been obtained from the office, if necessary. Arrangements will be maintained until the permit is terminated/cancelled.
 6. Anyone who takes over, either as a matter of routine or in an emergency, from the person who originally issued the permit, should assume full responsibility until the work is finished and the permit terminated, or handed it over to another nominated person.
 7. The engine room workshop permit shall be posted permanently in a conspicuous place in the workshop. The permit shall be issued by the Chief Engineer or 2nd Engineer, and endorsed by all personnel performing hot work. The permit can be terminated/cancelled by either the Chief Engineer or 2nd Engineer.
 8. The person responsible for carrying out the work should sign the permit to indicate his understanding of the safety precautions. On completion of the work, he should notify the issuing supervisor. Thereafter, both must jointly inspect the work site to ensure the area is safe and free of latent ignition sources.
 9. In the event that any cargo operations are underway, the permit (except for hot work in the workshop) should be cancelled until the cargo operations have ceased and a new permit issued.

NOTE:

All hot works are prohibited in the port without the written permission of the Port/Terminal Authorities. Heavy fines and/or a jail sentence can be imposed upon anyone breaching these regulations.

3.4. Hot work permit administrative requirements

1. All hot works require a permit.
2. All personnel involved must review the permit, issued in duplicate, before work started.
3. Everyone who signs a permit is responsible to ensure all precautions have been taken.
4. Completed permits should be retained onboard for a period of minimum five years.

3.5. General hot work precautions

The responsible officer, before the commencement of any hot work, shall check the following items:

1. Check the work area to ensure that no flammable materials are exposed and that could ignite from heat or sparks.
2. Ensure that work site is gas free and continuously monitored throughout the period of work. Pipes

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and pumps previously used for volatile liquids should be thoroughly cleaned and gas freed prior to any hot work.

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3. The ship fire main to be under pressure all the time.
4. Safety precautions have been explained to all personnel.
5. Deck watch has been informed.
6. Welding/cutting equipment and protective equipment inspected and found to be in appropriate and good condition.
7. Hot work must not reduce the ship fire fighting capability.
8. Instruct and maintain a fire watch with extinguisher(s) and hose (if applicable) in the work area and adjacent compartments, as long as necessary.
9. Require and obtain all appropriate terminal, port authority permits.

3.6. Engine room / accommodation hot work precautions

In addition to general precautions, following requirements must be fulfilled:

1. Chief Officer (for accommodation spaces) or Engineer on watch (for ER spaces) to be notified before hot work begins and upon its completion.
2. Local housekeeping to be checked and fire alarm tested.
3. Any special precautions to be taken and noted.
4. Permit validity period to be checked.
5. Bilges below and around the area proposed for hot work to be checked and found free of flammable materials and vapour.
6. Work site to be shielded for sparks.
7. For hot work on the piping used to carry flammable substances – section to be dismantled, cleaned and checked for flammable vapour.
8. For hot work on the pipe sections which extend beyond ER – section to be blanked.
9. Hot work should be stopped if any change in the conditions is observed. A new permit must be issued if hot work is stopped for more than 6 hours.
10. Location and work description to be obtained.
11. Permit to be issued by the Master or Chief Engineer and endorsed by the personnel performing the work. Permit to be terminated by the same personnel.
12. Hot work should not take place during dangerous cargo operations, bunkering or any other hazardous situation.
13. Connect fire hoses and run the fire pump.

3.7. Welding equipment and precautions

1. All welding equipment to be maintained according to the manufacturer's instructions. Only a competent person can service or repair the equipment.
2. To avoid voltage drop, the lead cable should be as short as possible.

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3. Cables should be inspected before use; if insulation is found damaged, they should not be used until repaired properly.
4. Cable connectors should be fully insulated when connected.

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5. Electrode holders should be fully insulated, so that no live part of the holder is exposed.
6. Dry protective clothing should be used at all times during the work.
7. Never weld alone.
8. Great care must be exercised when working in a confined space in conditions of high temperatures and humidity. Insulation mats could be necessary to protect operator from the shock.
9. In no circumstances should welding be performed while any part of worker's body is immersed in water.
10. The electrode holder should be isolated from the supply before changing electrodes. This precaution is necessary as some electrodes have extremely low resistance. Even the flux coating can accidentally become damp and thus potentially dangerous. For this reason, every effort should be made to keep spare electrodes dry. As an added precaution, always wear dry gloves.
11. Hot electrodes should be ejected into suitable container. They should not be handled with bare hands.
12. Always remove the electrode when welding operations are completed or temporarily suspended.

3.8. Gas welding and cutting precautions

1. Flame cutting equipment must be well maintained with particular attention given to regulators, back fire and back flow valves, hoses, joints and fittings, pressure gauges and torches. Defective equipment shall not be used. Only a competent person should service and repair the equipment.
2. The oxygen pressure, used for welding, should always be high enough to prevent flowing back the acetylene into the oxygen line.
3. Acetylene should not be used for welding/cutting at a pressure exceeding 1bar. It can explode under higher pressure.
4. Backpressure valves should be fitted next to the torch on the oxygen and acetylene supply hoses. Valves should be positioned at the cylinder, too, but only if designed so.
5. Only hoses specifically designed for gas operations should be used.
6. Flame arrestors (back-fire valves) on the supply lines and elsewhere shall be properly maintained.
7. Should a back-fire occurs, the valves on oxygen and acetylene cylinders must be immediately closed. A watch should be maintained on the acetylene cylinder and if become hot, immediately taken outside to the open deck and cooled with plenty of water or to immerse into the water. The cylinder to be handled with extreme caution, because any impact could set internal ignition and explosion.
8. Any gas manifolds should be clearly marked.
9. Manifold connections should be different for each type of gas to avoid interchange between different gases.
10. Any length of hose, in which a back-fire has occurred, should be discarded.
11. The connection between hose, blow pipe and hose joints should be secured with metal hose bands.
12. Hoses should be laid to avoid kinks or becoming tangled, cut or otherwise damaged.

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13. Only soapy water should be used to test for hose leaks.
14. Blowpipes should only be lit with special friction igniter, stationery flame or other safe means.
15. If a blowpipe tip become blocked, it should be cleaned only with dedicated tools.
16. When changing a blowpipe, ensure gases are shut of at the regulators.
17. During a temporary stoppage, supply valves on gas cylinders and gas mains to be shut.
18. Whenever storing or transporting cylinders, ensure caps are in place.
19. Never lift a cylinder by its valve or cap. Always try to use an approved cradle in preference to a net. If there is no alternative, ensure the net is in good condition with mesh size sufficiently small to prevent cylinder slipping through.
20. Never drop a cylinder.
21. Do not allow grease, oil or other combustible material to touch any part of a cylinder. This is particularly critical with oxygen cylinders. Oxygen under pressure reacts violently in contact with oil, grease and other combustible material. Pure acetylene forms a dangerous explosive compound with copper. Do not use fittings in contact with acetylene, which contains copper more than 65%. Only use approved fittings. Never use copper washers on acetylene bottles.
22. Always return cylinders with some positive pressure. Be sure valves are closed after use.
23. As a fireproof barrier, try to keep oxygen cylinders well separated (if possible at least 6m) from acetylene cylinder during storage. Always provide adequate ventilation. Never store cylinders in accommodation areas or machinery spaces. Storage areas should be provided with safe lighting and no smoking signs posted. Cylinders must be stored and used at less than 54°C.
24. Never strike or hammer cylinders or use spanners to open the valves. Remember acetylene has left-hand thread and oxygen cylinders right-hand thread.
25. Gas cylinders should be color coded to prevent confusion:

Oxygen.....Blue

Acetylene.....Maroon

3.9. Repair squad situations

On occasions, the Company could engage on the ship a large contingent of fitters for repairs. In these cases the Master shall issue permit to the team leader (e.g. senior fitter) who directly controls the work within that prospective area.

A hot work permit can only cover a single space. For each space (hold, tank, room...) separate permit must be issued.

3.10. Hot work on electrical equipment

Hot works on electrical equipment, in an area where an explosive atmosphere may be present, require special precautions including work permits. Whenever hot work is to be carried out in a gas dangerous zone on electrical equipment, or on equipment powered by electricity, Chief Engineer and electrician shall plan the work, including safety considerations.

The use of equipment on wandering leads is prohibited unless the area in which the equipment is to be

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used is gas free for hot work and the permit is issued.

For the purpose of repairs, alterations or carrying out tests, it is permissible to use soldering apparatus or other means involving flame, fire or heat, or to use industrial type apparatus, in any

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hazardous areas, provided that the area has first been made safe and certified gas free and is maintained in that condition as long as the work is in progress.

For this type of work a hot work permit shall be issued.

4. RECORDS

Safety checklists Entry Permit and Hot Work to be filed for a period of minimum five years in folder P1.

HOT/COLD WORK PERMIT

Permit is valid for single space only

- The Company has established and adopted procedures for safe execution of survey and work in enclosed spaces. Before entry and work in such spaces, the appropriate safety checks must be carried out by the Master and/or the Responsible Officer and by the person who is to enter.
- If the answer on any question is negative, permit can not be issued.

| | | | | | |
|--|--|-------------------------------------|--|--------------------------|--------------------------|
| Ship's name: | | Validity (date, hours) from: | | to: | |
| Space: | | Reason for work: | | | |
| SECTION 1 (To be checked by the Master and/or the Responsible Officer) | | | | YES | NOT APPLICABLE |
| Combustible gas test of area is carried out? (<i>Hot work, only</i>) %LEL Date/time: | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Area is clean and free of hazardous materials? | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to the work is safe and adequate lighting provided? | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| If equipment is being serviced or repaired, is it mechanically / electrically isolated | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the person in charge of work familiar with the equipment? | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Is a safe electrical source of power tools and equipment available? | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Protective clothing and equipment provided and worn? | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Fire watch/fire fighting equipment is provided? (<i>Hot work, only</i>) | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Area free of flammable material / gas free? (<i>Hot work, only</i>) | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Adjacent structure / materials have been checked | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Welding / burning equipment is correctly set up? (<i>Hot work, only</i>) | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Earth connection for static is carried out? | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| Company approval to proceed is obtained? (<i>Hot work, only</i>) | | | | <input type="checkbox"/> | <input type="checkbox"/> |
| All safety activities related to possible entry into enclosed space, work in enclosed space, work in engine room, etc... has been checked and fulfilled? | | | | <input type="checkbox"/> | <input type="checkbox"/> |

SPECIAL PRECAUTIONS (if any):**ENTRY AUTHORITY** (Responsible Officer - Senior Deck/Engine Officer)

I have checked the above conditions and consider the space safe to enter, provided that conditions laid down are followed.

Name and signature:

WORK AUTHORITY ACCEPTANCE (Person in charge of entrance/work)

I understand the precautions to be taken and will return this permit for cancellation timely after completion of the work.

Name and signature:

ISSUING AUTHORITY (Master/Chief Engineer)

Permission is granted subject to the conditions above.

Name and signature:

NOTE: Permit validity must not exceed the Authorised Signatories'/Responsible Officer's working hours

- **COPY 1** - to be issued to person in charge of entrance/work
- **ORIGINAL** to be placed and kept in the folder P1 & U1 and kept for minimum 5 years
- When the work is completed, return the permit to issuing authority.

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| VESSEL SAFETY MANUAL ENTRY INTO ENCLOSED SPACE |

ENTRY INTO ENCLOSED SPACE

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| Written By | Verified By | Approved)RU |
| NAME AND SURNAME | NAME AND SURNAME | NAME AND SURNAME |
| Safety & Quality Department Manager | Technical Department Director | Managing Board President |

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**VESSEL SAFETY MANUAL
ENTRY INTO ENCLOSED SPACE**

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VESSEL SAFETY MANUAL ENTRY INTO ENCLOSED SPACE

1. PURPOSE

To ensure the safety of personnel during operations that require entry into an enclosed spaces.

2. RESPONSIBILITY

The Master is responsible for implementation of the procedure, for instructing the crew and supervising the implementation.

Nobody is allowed to entry and enclosed space, unless the Master or the Chief Officer has issued the entry.

3. DESCRIPTION OF PROCEDURE

3.1. General

Any tank, cargo hold or other space, which has contained or which directly communicate with one that contain a liquid, or which has been sealed, should be assumed to have a dangerous atmosphere and consequently be unsafe for entry without protection of breathing apparatus. Unprotected entry should not be attempted until a competent person has made an assessment and appropriate measures were taken. Any open tank, which has not been made "gas free", should be secured against entry and a "NO ENTRY" notice hung on the hatch opening.

Before entry into enclosed space, the Master, Chief Officer or a delegated Officer and the person who enters the space must carry out the appropriate safety checks.

3.2. Preparing a space for entry

When opening an enclosed space, care should be taken to avoid the effects of a possible release of pressure or vapour from the space.

The space should be isolated and secured against the ingress of dangerous substances by blanking off the pipelines or other openings, or by closing the valves. Valves should then be tied or other means used to prevent accidental operation.

If necessary, the space should be cleaned or washed out to remove, as far as practicable, any sludge or other deposit, liable to give off dangerous fumes. Special precautions may be necessary when undertaking such work for reasons already given.

The space should be thoroughly ventilated by either natural or mechanical means, to ensure all harmful gases are removed. Compressed oxygen should never be used to ventilate a space.

The Bridge and Engine Room Duty Officers should be kept informed and warning signs posted to warn against accidental use of equipment, valves or stopping ventilation, etc.

3.3. Oxygen Deficiency

If an empty or other confined space has been closed for some time, the oxygen content may have been reduced by the rusting process.

Lack of oxygen may occur in boilers and pressure vessels, where oxygen-absorbing chemicals have been used to prevent rusting.

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Depletion of oxygen may occur in cargo spaces from oxygen absorbing cargoes, such as oil cake, steel products, swarf, etc

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Oxygen deficiency can also occur in cargo holds, e.g. when carrying ore concentrates, even though the hatch covers have been removed and discharge of cargo commenced.

After discharge of volatile cargoes, sufficient vapours may remain in tanks to cause oxygen deficiency.

If CO₂, foam or other fire extinguishing gas or chemical has been discharged into the space, the oxygen will be reduced.

3.4. Procedures and arrangements before entry

- Entry Permit to be completed and all necessary measures taken to ensure safety of the personnel. Access to and within the space should be adequate and well illuminated.
- No matches, welding or flame cutting equipment, or other sources of ignition must not be used without the Master or responsible Officer's authorization.
- In all cases rescue and available resuscitation equipment should be positioned ready for use at the entrance to the space.
- The number of persons entering a space should be limited to those who actually need to work in the space and could be rescued if an emergency occur.
- At least one attendant should be detailed to remain at the entrance to the space whilst it is occupied.
- A system of communication should be agreed and tested by all involved personnel. Communication between the Attendant and Officer on watch must be kept continuously.
- Before entering the space, to ensure that there are no obstruction and that any rescue will not be unduly hampered by obstructions.
- To ensure lifelines are long enough and easily detachable, should they become entangled

3.5. Procedures and Arrangements During Entry

- Ventilation to continue throughout the whole period the space is occupied. If ventilation fails, evacuate the space immediately.
- Test the atmosphere periodically.
- If the person in the space is in any doubt or feels adversely affected, he should make the appropriate signal and leave the space immediately.
- If an emergency occur, the General Alarm to be sounded to summon the rescue team.
- If there is a possibility of dangerous chemicals hazard, protective clothing to be worn.

4. RECORDS

Safety checklist to be filed for a period of minimum five years in folder P1.

ENTRY PERMIT

(Valid for one space/compartment only)

- The Company has established and adopted procedures for safe execution of survey and work in enclosed spaces. Before entry into such spaces, the appropriate safety checks listed below must be carried out by the Master and/or the Responsible Officer and by the person who is to enter.
- If the answer on any question is negative, permit can not be issued.

| | | | |
|--|-------------------|----------------------------------|--------------------------|
| Ship's name: | | Validity (date, hours) from: to: | |
| Space: | Reason for entry: | | |
| SECTION 1 (To be checked by the Master and/or the Responsible Officer) | | YES | NOT APPLICABLE |
| Space is properly cleaned (if necessary) ventilated, tested and found safe? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Readings: Oxygen.....%(21%); Hydrocarbon.....%LFL(less than 1%); Toxic gases..... ppm(PEL) | | | |
| Arrangements been made for continuous ventilation during the work and the brake? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Arrangements been made to repeat testing at regular intervals during the work and the brake? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Rescue and resuscitation equipment is available for immediate use and placed at the entrance? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Breathing apparatus (air supply, low-pressure alarm, facemask tightness) is in satisfactory condition? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Access, and illumination is adequate, evacuation procedure established? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Bridge and ER are informed, communication with Watching Officer established? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Responsible person to be in constant attendance at the entrance to the space? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Communication between the person at the entrance and those entering the space is established? | | <input type="checkbox"/> | <input type="checkbox"/> |
| SECTION 2 (To be checked by the person to enter the space after checks in section 1 completed) | | YES | NOT APPLICABLE |
| Have you been given instructions by the Master and/or responsible Officer to enter the space? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Are you satisfied all relevant checks in section 1 have been completed? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Do you understand the way of communication between yourself and person at entrance to the space? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Are you aware to leave the space immediately in case of ventilation or communication failure? | | <input type="checkbox"/> | <input type="checkbox"/> |
| Are you familiar with the breathing apparatus and other safety and protective equipment to be used? | | <input type="checkbox"/> | <input type="checkbox"/> |

SPECIAL PRECAUTIONS (if any):**ENTRY AUTHORITY** (Responsible Officer - Senior Deck/Engine Officer)

I have checked the above conditions and consider the space safe to enter, provided that conditions laid down are followed.

Name and signature:

WORK AUTHORITY ACCEPTANCE (Person in charge of entrance/work)

I understand the precautions to be taken and will return this permit for cancellation timely after completion of the work.

Name and signature:

ISSUING AUTHORITY (Master/Chief Engineer)

Permission is granted subject to the conditions above.

Name and signature:

NOTE: Permit validity should not exceed period of normal working day.

- **COPY 1** - to be issued to person in charge of entrance/work
- **ORIGINAL** to be placed and kept in the vessel file: P1&U1 and kept for minimum 5 years
- When the work is completed, return the permit to issuing authority.

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WORK ALOFT

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| NAME AND SURNAME | NAME AND SURNAME | NAME AND SURNAME |
| Safety & Quality Department Manager | Technical Department Director | Managing Board President |

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VESSEL SAFETY MANUAL WORK ALOFT

1. PURPOSE

To ensure the safety of personnel working aloft.

2. RESPONSIBILITY

It is responsibility of the Chief Officer or the Chief Engineer to ensure that the regulations and recommendations are implemented and observed, and to instruct and supervise the officers, engineers and ratings involved.

3. DESCRIPTION OF PROCEDURE

3.1. Work aloft or over-side

- Safety harness must be worn.
- No one is to climb the funnel or masts without the approval of Chief Officer. In order to avoid accidental use of radar, radio aerials, whistles, safety valves and waste pipe outlets, the respective equipment is to be shut off and DO NOT OPERATE warning signs placed near the controls.
- Before going aloft or over-side, always check all supporting equipment.
- If possible, rig safety nets.
- Send tools up in suitable containers and use to stow tools not being used. Never leave tools unsecured on such areas as the mast tables.
- Wear suitable clothing, shoes and hard hat.
- If possible, do not raise men in the Bosun's Chair. If necessary, do so only by hand and never use power winch.
- When work over-side, always wear a life jacket in addition to a safety harness/belt. Have a lifebuoy and line available on a deck.
- Never work alone, always have a man on deck watching and able to quickly summon assistance.
- Men should not work over-side while vessel is underway.

3.2. Ropes

The safety of the man aloft or over-side depends upon the strength of line holding him whether it is a lifeline to his harness or gantline to a Bosun's Chair stage.

Ropes should be stored away from heat and sunlight and in a separate compartment from containers of chemicals, detergents, rust removers, paint strippers or other substances capable of damaging them.

Ropes should be inspected before use, for signs of deterioration, undue wear or damage. This is particularly important if a gantline has not been used for some time.

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3.3. Portable ladders

A portable ladder should have rungs/steps at least 255mm wide (not round steps), be soundly constructed and have adequate strength for the purpose for which is designed for. A ladder should not be used if any part is defective. There should be approximately 150mm clearance between rungs.

All ladders should be inspected at regular intervals and maintained in sound condition. Wooden ladders should not be painted or treated so as hide cracks and defects.

Working from ladders is not allowed unless unavoidable, in which case always ensure safety harness and lifeline is worn.

3.4. Work Aloft permit

A Work Aloft Permit is used to ensure the safety hazards are identified and that all measures have been taken to eliminate them. The permit identifies possible hazards and eventual precautions to be taken and lists the sequence of operations and precautions. It does not make the job safe by itself, but its strict observance minimizes the possibility of an accident happening.

4. RECORDS

Records (checklists) to be kept if the work is linked with hot work/cold work activities.

Work Aloft Permit

WORK ALOFT PERMIT

Permit is valid for single place only (valid only for time of work, not to exceed 8 hours)

- The Company has established and adopted procedures for safe execution of survey and work aloft. Before work at such places, the appropriate safety checks must be carried out by the Responsible Officer and by the person who is to work.

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|---|--|--------------------------|--------------------------|--------|
| Ship's name: | Validity (date, hours) from: to: | | | |
| Specific Location and Description of work: | | | | |
| Specify Conditions for work: | | | | |
| Personnel assigned to the work: | | | | |
| (To be checked by the Responsible Officer) | | YES | NO | REMARK |
| 1. | Have all persons been briefed on the requirements of the work? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. | Are all persons competent to carry out the work? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. | Are there enough persons to do the work? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 4. | Are all persons wearing a Safety Harnesses (if required)? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5. | Has the equipment to be used been checked and found to be in good condition? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6. | Are there adequate Securing Points at the Work Position? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 7. | Has a method of communications been set and agreed by all parties? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 8. | Has the Officer On Watch and/or Duty Engineer been informed of the work taking place? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 9. | Does any of the following equipment need to be Isolated or Immobilised: | <input type="checkbox"/> | <input type="checkbox"/> | |
| a) | Whistle | <input type="checkbox"/> | <input type="checkbox"/> | |
| b) | Scanners | <input type="checkbox"/> | <input type="checkbox"/> | |
| c) | Aerials | <input type="checkbox"/> | <input type="checkbox"/> | |
| d) | Lights | <input type="checkbox"/> | <input type="checkbox"/> | |
| e) | Boiler Sootblowers | <input type="checkbox"/> | <input type="checkbox"/> | |
| f) | Deck Cranes | <input type="checkbox"/> | <input type="checkbox"/> | |
| g) | Engine Room Crane | <input type="checkbox"/> | <input type="checkbox"/> | |
| h) | Other (specify) | <input type="checkbox"/> | <input type="checkbox"/> | |
| 10. | Has Isolated or Immobilised Equipment been clearly marked with notices and locked where possible? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11. | Has a responsible officer signed to having checked, that the equipment is Isolated or Immobilised? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12. | Has a copy of this Permit been posted at the place of work? | <input type="checkbox"/> | <input type="checkbox"/> | |

SPECIAL PRECAUTIONS (if any):

Officer in Charge: _____

Safety Officer: _____

- **COPY 1** - to be issued to person in charge for work
 ➤ **ORIGINAL** to be placed and kept in the folder P1 & U1 and kept for minimum 5 years
 ➤ When the work is completed, return the permit to issuing authority.