

**AZ MARINE OFFSHORE SERVICES PTE LTD**



**CONTRACTOR IN-HOUSE SEFETY BRIEFING**

## 1. WSH Act and Regulations

- ✓ Workplace Safety and Health (WSH) Act
- ✓ WSH (Shipbuilding and Ship-repairing) Regulations 2008
- ✓ WSH (General Provisions) Regulations
- ✓ WSH (First Aid) Regulations
- ✓ WSH (Incident Reporting) Regulations
- ✓ WSH (Risk Management) Regulations
- ✓ WSH (Abrasive Blasting) Regulations 2008
- ✓ WSH (Explosive Powered Tools) Regulations 2009
- ✓ WSH (Confined Spaces) Regulations 2009
- ✓ WSH (Noise) Regulation 2011
- ✓ WSH (Operation of Cranes) Regulations 2011
- ✓ WSH (Scaffolds) Regulations 2011
- ✓ WSH (Work at Heights) Regulations

## 2. Safety and health training

### 2.1 Shipyard Safety Induction Course (General Trade)

Any person who carries out hazardous work in a shipyard, must have undergone a safety and health training course approved by the Commissioner.

### 2.2 Shipyard Safety Induction Course (Hot-work Trade)

Any person carries out hot-work in a shipyard must have undergone a safety and health training course on hot-work approved by the Commissioner.

### 2.3 Shipyard Safety Induction Course (Painter Trade)

Any person who carries out spray painting work, or painting in a confined space, in a shipyard must have undergone a safety and health training course on painting approved by the Commissioner.

### 2.4 Shipyard Supervisors Safety Course (SSSC)

Any person who carries out oversight or supervisory work in a shipyard must have received adequate safety and health training to ensure that the work which he oversees or supervises can be carried out safely.

## 3. VESSEL SAFETY CO-ORDINATION COMMITTEE

Any hazardous work is to be carried out on board any ship or the structural part of any ship under construction, the occupier of the shipyard; and to establish a vessel safety co-ordination committee for that ship.

### 3.1 The vessel safety co-ordination committee shall;

1. Review and discuss regularly all matters relating to the safety and health of the persons involved in the work.
2. Draw up a plan for the co-ordination of the work to ensure that where different types of work are being carried out at the same time, the types of work are compatible.

3. Ensure that all relevant first-line supervisors and the master, owner and agent of the ship or their representatives are informed of the plan.
4. Review on a daily basis all work in progress on the ship.
5. Plan and co-ordinate the movement and storage of hazardous materials.
6. Review on a daily basis the validity of all permits issued under Regulations.
7. Specially monitor all hot-works carried out on the ship and ensure that all safety measures are maintained throughout the period of such work.
8. Ensure that every confined space is checked for concentrations of oxygen, dangerous gases and flammable vapours before any person enters into it; and regularly while work is being carried out, and review the results of such checks.
9. Ensure that every person is provided with and uses the appropriate personal protective equipment for his work.
10. Make arrangements and determine the locations for the display of safety signs and permits on board the ship.

#### 4. PERMIT-TO-WORK SYSTEM

4.1 The following types of work that are carried out in relation to a ship (including a ship under construction) in a shipyard as high-risk works:

- a. Work which involves the use of any hazardous, volatile, corrosive or flammable chemical, material or solvent in significant quantities;
- b. Spray painting work;
- c. Grit-blasting work carried out in a confined space;
- d. Testing or dismantling of any pipe or equipment that —
  - i. Contains, or had contained, oil or substances that are
  - ii. Flammable, toxic or corrosive; or
  - iii. Contains steam;
- e. Ballasting and de-ballasting of a ship;
- f. repair or maintenance work carried out on the hydraulic system of a ship;
- g. Bunkering and transferring of fuel oil;
- h. Radiography work

4.2 An application for a permit-to-work shall be made by the supervisor or foreman of a person who is to carry out any high-risk work and state the measures which will be taken to ensure the safety and health of persons and submitted to the safety assessor of the shipyard.

4.3 Safety assessor shall assess whether all reasonably practicable measures have been taken to ensure the safety and health of the persons, and inspect the site (including its surroundings) where the high risk work is to be carried out together with the supervisor or foreman of the person. Safety assessor is satisfied that the high-risk work shall endorse the application for the permit-to-work and forward the endorsed application to the ship repair manager.

4.4 Ship repair manager may issue a permit-to-work in relation to any high-risk work if he is satisfied that there has been a proper evaluation of the risks and hazards involved in the carrying out of the high-risk work based on the available information.

- 4.5 Supervisor or foreman of any person who carries out any high-risk work to clearly post a copy of the permit-to-work issued in respect of that high-risk work and ensure that the copy is not removed until the date of expiry or date of revocation of the permit-to-work or on completion of the high-risk work.

## 5. HOT-WORK PERMIT SYSTEM

- 5.1 Any hot-work is or is to be carried out in relation to a ship (including a ship under construction) in a shipyard implement a hot-work permit system.
- 5.2 Appoint a safety assessor (who shall be a workplace safety and health officer or a competent person) in accordance.
- 5.3 Any hot-work is or is to be carried out in a shipyard, the occupier of the shipyard to ensure that no such hot-work is carried out without a hot-work permit in respect of that hot-work first issued by the ship repair manager of the ship to which the hot-work relates.
- 5.4 Every application for a hot-work permit shall be accompanied by sketches showing the exact locations where the hot-work is to be carried out.
- 5.5 Safety assessor to exercise all due diligence when performing his functions in relation to the evaluation and endorsement of an application for a hot-work permit.
- 5.6 Ship repair manager who issues a hot-work permit in respect of any hot-work shall retain a copy of the hot-work permit.
- 5.7 Where any hot-work is to be carried out is clearly marked for easy identification,
- 5.8 Any hot-work is carried out in a shipyard to ensure that the fire watchman trained and provided with suitable and adequate firefighting equipment
- 5.9 Any person who is aware of any work being carried out in a shipyard incompatible with any hot-work being carried out thereat to immediately report the incompatible work to his supervisor, the workplace safety and health officer, or the ship repair manager who issued the hot-work permit in respect of that hot-work.
- 5.10 Ship repair manager to review and assess the need to continue the hot-work on a daily basis and revoke the hot-work permit if he thinks fit to do so.

Ref: WORKPLACE SAFETY AND HEALTH (SHIPBUILDING AND SHIP-REPAIRING) REGULATIONS 2008 under Regulations 27 to 37.

## 6. GENERAL PROVISIONS

- 6.1 Any cover of a hatch opening is in the open position, effective means is provided to prevent accidental closure of the cover.
- 6.2 All passageways, stairs, platforms and other means of access or places of work are kept free from debris or protruding objects or any other obstructions that could cause tripping.
- 6.3 Any sharp projection which is present in any passageway, stair, and platform and other means of access or place of work and which may injure any person is removed or otherwise made safe.
- 6.4 Any passageway, scaffold, platform or other elevated working surface to be used by the person carrying out the work is kept free from slipping hazard.
- 6.5 Drowning hazards – if using gangway or crossing vessel must use life jacket.
- 6.6 Spray painting work is carried out in a shipyard Suitable and effective breathing apparatus for spray painting works shall be used.

6.7 No person shall drive a vehicle of any class or description in a shipyard unless he has obtained the authorisation of the occupier of the shipyard to do so.

6.8 During working hours provide suitable light at workplace.

6.9 We will maintain Emergency lighting for use in the event of a power failure affecting the general lighting, which is sufficient in intensity and distribution to allow for the safe evacuation or rescue of persons.

## 7. Prohibition on smoking

Az Marine adopts a mandatory “NO SMOKING” policy for all Personnel. Cigarettes and lighters are strictly prohibited in the operational zones due to fire safety reasons. Designated smoking area only allowed.

## 8. Safety signs

AZ Marine to provide appropriate safety signs placed at appropriate and suitable locations.

## 9. Risk Assessment

9.1 All contractors should submit their Risk Assessment and SWP document, for the task to be performed to yard prior perform the task.

9.2 The Risk Assessment document shall be communicated to the workers involved via daily tool box meeting.

## 10. General Safety Rules and Regulations

- Operate machines or equipment only if you have been trained / qualified and authorized to operate such machines / equipment;
- Do not horseplay at the workplace i.e. childish behavior that may endanger one-self or any other employees is strictly prohibited;
- Report any unsafe acts / unsafe conditions to your superior immediately; Worker must practice good and safe work habit and be alert to hazards at the workplace each other;
- Put on required personal protective equipment (PPE) whenever you enter workplace, e.g. safety shoes, helmet, etc. according to the requirements for the workplace;
- Do not consume food in the work area;
- Smoking is STRICTLY prohibited in the workplace, except at designated smoking area;
- Obey all safety warning signs / notices and comply with all safe work procedures;
- Use all safety equipment provided. Do not tamper the safety equipment;
- Be attentive at work at all times. Do not daydream at the workplace;
- Keep your workplace clean and tidy. Return all tools to designated area after use;
- Report immediately any accident or incident or near miss to your immediate superior;
- Always practice good personal hygiene. Wash your hands in between breaks / lunch and before going home;

## 11. Machinery / Equipment Safety

- 11.1 Practice lockout / tag out for any maintenance, inspection, repair or cleaning work done on any plant, machine or equipment at workplaces.
- 11.2 Only trained and authorized personnel are allowed to operate machines.
- 11.3 Always be alert of pinch points, clamping hazards, in-running nip points. Keep hands and body parts away from dangerous parts of machines at all times;
- 11.4 before touching any dangerous parts of machinery ensure the machine has totally stop;
- 11.5 If it is not possible to totally stop the machine, but need to reach into machine, use extension tools e.g. pincers, brush, pliers, rods etc. to reach and not with your bare hands;
- 11.6 Ensure parts / tools have been securely fixed before setting machine in motion;
- 11.7 Do not remove / tamper / bypass any safety switches / machine guards / light sensors must provided;
- 11.8 Long hair shall be properly tied up and inserted under cap or hair net when working near or around machinery;
- 11.9 When operating or walking around the machine, do not wear loose clothing, neckties, jewelry e.g. chain, ring etc.;
- 11.10 Report immediately to superior for any potential hazard or malfunction of any machine or process;
- 11.11 Remove all tools, rags and any other items away before setting machine in motion;
- 11.12 Do not use bare hands to clear dusts or metal chips. Use proper gloves, brush and pans to remove product wastes / chips from machine;
- 11.13 No mobile phones should be used while operating working on machinery / equipment;
- 11.14 Employees are not authorized to carry out task beyond their scope of work. E.g. doing electrical work, major repairs, overhaul etc;
- 11.15 To display appropriate sign for machine undergoing repair, breakdown or maintenance work
- 11.16 Do not operate machine if its safety guards are removed or damaged;
- 11.17 Do not wear cotton gloves, when working on / near / around any machinery with rotating spindle. E.g. disc cutting machine;
- 11.18 Ensure all machine must have "Emergency" stop button red in color and in good working condition;  
Press "Emergency" stop button immediately when you encounter any danger during operation;  
Only ONE person should operate a machine / a set of machine at any one time. This applies even when two people are doing maintenance or repair work on the machine, only one person be authorized to operate the machine;

## **12. Materials Handling**

- 12.1 Use proper gloves when manual handling item with rough or sharp edge;

- 12.2 Do not manual lift beyond 25 kg (subject to personal limitation) individually. Always ask for assistance if load is too heavy;
- 12.3 Use mechanical lifting aid whenever possible. E.g. forklift, pallet jack, etc;
- 12.4 In general, do PUSH and NOT PULL when using manual handling equipment. Except it was designed to be pulled, such as using a pallet truck;
- 12.5 Secure all loose materials before moving load to prevent the risk of falling object;
- 12.6 Goods must be evenly stacked and stabilized. Check with supervisor if unsure of stacking height;
- 12.7 Do not lean unused pallets against the wall; lay them flat on the floor;
- 12.8 All unused ladders must be laid down on floor away from activities area. Vertically stored ladders must be properly secured by means of rope or bracket;

### **13. Chemicals Handling**

- 13.1 Ensure all chemical used in the plant have valid Safety Data Sheet (SDS).
- 13.2 Ensure SDS is available at workplace for easy reference and properly assessed by WSH personnel or supervisor;
- 13.3 Proper training shall be conducted for all employees who is appointed to handle chemicals;
- 13.4 Workers have the right to know what chemical they are dealing with;
- 13.5 Employees shall comply with all safe work procedures and rules & regulations when handling chemicals at the workplaces;
- 13.6 Use approved personal protective equipment provided when handling chemicals, refer to SDS requirements;
- 13.7 When contact chemicals on skin / body/ eyes, wash off with running water immediately. Use the eyewash station if required;
- 13.8 Do not use suspicious or unlabeled chemicals when uncertain of its contents;
- 13.9 Do not mix chemical with other substances (even water) without instruction. Refer to SDS or your immediate superior when in doubt;
- 13.10 All chemical containers shall be accurately labeled of its contents and its hazards and stored at its designated areas;
- 13.11 Flammable liquids must be stored in approved flammable cabinets. These cabinets must not be relocated without the approval of the WSH Personnel. For diesel, it shall be stored in the designated diesel tank;
- 13.12 Always practice good personal hygiene when handling chemicals. E.g. wash hands thoroughly in between each break and after working with chemicals;
- 13.13 Do not engage in wrongful practices when dealing with chemicals e.g. tasting of chemical, suck / siphon chemical, smell vapor / fumes;

- 13.14 Do not dispose any chemicals into drains, sewage or any watercourse. If in doubt, check with your immediate superior;
- 13.15 Contain and clear chemical spills immediately using spill control kit. Prevent spillage entry to drains. Report to superior immediately;
- 13.16 Use neoprene / nitrile / rubber gloves provided when handling / contacting chemicals;
- 13.17 Report immediately any incidents or mishaps involving chemical to your immediate superior.

#### **14. Compressed Air and Gas Cylinders**

- 14.1 Do not use compressed air to clean or blow floors;
- 14.2 Never shower with compressed air or direct air hose towards another person;
- 14.3 Safety glasses shall be worn at all time when working with compressed air.
- 14.4 All gas cylinders shall be:
- Stored upright and secured to a fix structure. Protective caps are in place unless regulator is attached. Flammable gasses are distanced from oxidizer by 6 m;
  - Empty cylinders are identified, marked (Empty) accordingly and segregated from other cylinders;
  - Cylinders with regulators must have the valves closed and pressure reading zero unless in use. Hose are in good condition and connections have been tested for leaks;
  - Do not use jubilee clip for all hose attached to a gas cylinder especially for acetylene and oxygen cylinders;

#### **15. Forklift / Stacker Safety**

- 15.1 Only certified personnel from MOM approved training Centre shall be allowed to drive forklift;
- 15.2 Stacker driver shall be tested for its competency before allowed to drive the stacker;
- 15.3 Hitch riding on forklift / stacker is STRICTLY prohibited;
- 15.4 Speed limit for forklift / stacker is 15 km/ hr i.e. crawling speed, pay attention on speeding alarm and control sped accordingly to avoid forklift locking off by device;
- 15.5 No stunt driving of forklift / stacker is permitted;
- 15.6 Forklift / Stacker shall not be used as human lift for whatever purpose. Do not carry people on forklift / stacker;
- 15.7 Do not protrude any part of your body outside the cabin area when operating the forklift;
- 15.8 Operators are responsible for testing the brakes, horns and controls lever prior to operating the forklift. Conduct the daily check accordingly;
- 15.9 The forks shall be lowered to within 8 inches from the floor of forklift / stacker is being driven;
- 15.10 Never leave forklift / stacker engine running unattended. Shut off the forklift / stacker engine when not in use;



- 15.11 When parking the forklift, operator would have to set the brakes, lower forks to ground, and remove the ignition key before leaving the truck. Never park on slope / ramp;
- 15.12 Never use mobile phone while using the forklift / stacker;
- 15.13 Do not load beyond truck loading limit. Tipping of forklift is sign of overloading. STOP at once. Report to supervisor;
- 15.14 Do not put additional counterweight on forklift / stacker. E.g. make people stand at back of forklift / stacker.

## **16. Personal Protective Equipment**

- 16.1 All personnel working within the warehouse and operation yard area are required to wear safety shoes;
- 16.2 All cleaners / visitors / contractors working in the plant area must put on safety shoes unless on the walkway.
- 16.3 No barefoot, slippers or sandals are allowed when walking in the plant. Minimum requirement is covered shoes on the walkways.
- 16.4 Earplugs shall be worn for all high noise areas i.e. more than 85 dBA exposure and areas identified by the WSH Officer or Noise Monitoring Officer.
- 16.5 Do not tamper with the PPE provided.
- 16.6 Report to supervisor for any damaged PPE for replacements.
- 16.7 Specific PPE like safety glass, face shields, etc. shall be used when there is risk of flying particles or as requested by supervisors or called upon in the Safe Work Procedures.

## **17. Work at Height**

- 17.1 In case workers need to working at position above ground or below ground level, where, need obtaining access to egress for working there. if potential fall distance more than 2.0 meter, following measure shall be taken:
- Fall protection equipment or travelling constrain system shall be implemented, it means safety harness/ safety belt and anchoring point shall be available;
  - Permit to work must be applied to conform related risk control measures, implemented properly for protect staff;
- 17.2 Safety harness / with lanyard must be worn correctly and secured to right anchoring points.
- 17.3 Apply Work at Heights Permit at height according to work at height before start of such work at Az Marine premise. SRM / WSH personnel to approve such permit;
- 17.4 Work at height at Yard need to complete pre-inspection checklist by supervisor to ensure:
- that all tools used for working at height are in good condition;
  - All workers wear proper falling protection /travel restraining system properly;
  - All workers and supervisor have trained on work at height.

- 17.5 Do not move personnel while on ladders, scaffold etc. All personnel have to come down before such equipment can be moved;
- 17.6 Handrail and guardrail must be made available at the work platform, its height is more than 2 meters;
- 17.7 Ensure any ladder; working platform is set up on a stable, solid and non-slip area;
- 17.8 When using ladder, it is secured to a fixed structure or held in place by standby person;
- 17.9 All tools, used during work at height shall be put inside proper tool bag/box or secured at right position to prevent falling objectives.

## **18. Fire Safety**

- 18.1 All employees shall be familiar with the fire escape routes, fire emergency procedures and the assembly area;
- 18.2 All emergency response team personnel shall be familiar with the location of firefighting equipment and know how to operate the fire extinguisher and fire hose reel;
- 18.3 Tampering with firefighting equipment is STRICTLY prohibited.
- 18.4 All fire escape routes and emergency exits are to be kept free from all obstruction and unblocked all the time. Do not lock EXIT doors.
- 18.5 Access to fire alarm, break glass, extinguisher and hoses shall be maintained.
- 18.6 All employees shall comply with the "No Smoking" requirements within the yard.
- 18.7 All hot work intended within the plant must be approved through the hot work permit system.