Ship Building and Repair Meeting Kit

WHAT’S AT STAKE

Shipbuilding and ship repair includes the manufacture, repair, and maintenance of ships. Several types of hazards are common in this industry, including chemical (asbestos, welding fumes, solvents, paints, fuels), physical (noise, heat stress), and safety (fires, confined spaces, falls, heavy equipment).

WHAT’S THE DANGER

HAZARDS/DANGERS IN SHIPYARDS

Shipyard work covers a wide range of activities, including the construction, repair, retrofitting, dismantling, and scrapping of vessels. This type of work often requires the use of potentially dangerous tools and equipment.

Hazards shipyard workers can face include:

- Exposure to toxic substances
- Electrocution
- Hazardous atmospheres
- Explosions
- Falls
- Fires

Shipyard Accidents That Can Kill Or Injure A Shipyard Worker

- Fires and Explosions
- Slips and falls
- Electrocution
- Crane accidents
- Environmental hazards
- Forklift accidents

- Structural collapses
- Exposure to hazardous materials
- Exposure to toxic gases
- Being struck by falling objects
- Poorly maintained equipment
- Scaffolding and ladder mishaps
- Exposure to excessive levels of noise
- Crush injuries
- Affixation

HOW TO PROTECT YOURSELF

BEST SPECIFIC SHIP REPAIR PRACTICES

- Get training on confined space work and the safety requirements. A competent person should identify the confined and enclosed spaces on a ship, determine if atmospheric testing is needed, and plan access procedures. Spaces that are low or high in oxygen, toxic, or flammable should be labeled with the hazard. Don’t enter hazardous spaces without proper training and emergency equipment.
- Get training on arc welding, including electricity and hazardous fumes. Work in well-ventilated areas. Use local-exhaust ventilation or a supplied-air respirator when welding stainless steel, lead, zinc, beryllium, copper, or cadmium. Avoid the use of chlorinated solvents and decontaminate work surfaces before welding.
- Wear gloves, caps, and coveralls to protect skin from burns and damaging ultraviolet rays. Use shaded goggles with side shields and screening to protect your and coworkers’ eyes from UV and radiant energy.
- Arc welding occurs in all weather, in and outdoors. Changing electrodes with bare hands, wet gloves, or while standing on a wet or grounded surface can lead to electric shock. Use safe, dry work methods. Inspect leads, cables, and electrode holders before each use. Maintain welding electrode holder insulation and protect it.
- Ships old and new can contain hazardous substances such as lead, asbestos, chromium, flammable fuels, and other

chemicals. Be aware of the materials and hazards within the ship. Know proper handling procedures, safe work practices, and disposal methods. Use required personal protective equipment (PPE).

- Eye injuries from dust, dirt, and metal debris are common to ship workers. Wear protective eyewear. Never blow into your goggles, glasses, visors, or respirators because dust can blow back into your eyes. Instead, use wet cleaning wipes. Rubbing your eyes grinds dust into them; rinse with water or saline solution. Monitor for noise levels and get periodic hearing exams. Use hearing protection when required.
- Falls can be very dangerous on a ship. Cover or barricade all deck openings. Install railings at elevated work areas. Use scaffolds or ladders to access high work areas. Wear fall protection if you work at an unprotected height. Protect elevated areas near water and have water rescue equipment available on ship and shore.

BEST GENERAL SHIPYARD WORK MEASURES

1. **Get Proper Training.** Being trained in handling the equipment properly reduces accidents in shipyards.
2. Let the Experts Guide. Many tasks on a shipyard are highly technical. Such tasks are best handled by workers who have been trained explicitly to do so.
3. **Safety Measures.** Protecting structures like railings, platforms, and mid rails along with other shipyard safety measures should be ensured around the working space of workers.
4. **Awareness of the Workers.** Workers who might be unaware about handling equipment or about the safety are more likely to run into an accident than those who do.
5. **Unclutter the Workplace and Good Housekeeping.** There should be no unwanted material like tools, ropes, planks, paint tins etc. lying around.
6. **Team Effort and Cooperation.** Workers should work together, as a single unit. Minor care towards proper efficiency of work can make immense difference in shipyard safety.
7. **Separate Shipyard Safety Training Sessions.** This kind of

shipyard safety training should be given to every worker on the shipyard before they start working.

8. **Protective Gear – Never Avoid Them.** Proper protective gear must always be worn by workers at all times.
9. **Educate oneself.** Knowing about the standards set by the government exclusively to maintain the safety of workers working in shipyards help employers to forward much safer working conditions to their workers.
10. **Communication – Communication Gaps Leads to Great Danger.** Two-way communication to extend knowledge to discuss problems being faced by workers helps in making sure that no information is being missed.
11. **Listen to Seniors and Experts.** Seniors and experts are placed in the shipyards for a reason. They have the experience and skills. Workers should listen to their advice and learn from them.

FINAL WORD

Any given day presents a varied list of potential hazards in the shipbuilding industry, whether it be the risk of falls, heat stress, welding fumes, dangerous equipment, or accidents involving handheld tools.