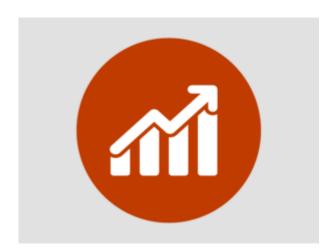
## Fire and Explosions in Shipyards Stats and Facts



## **FACTS**

Fire and explosions in shipyards have devastating consequences.

- 1. Improper storage or handling of flammable materials, such as fuels, solvents, paints, or chemicals, can lead to accidental ignition.
- 2. Hot work operations like welding, cutting, and grinding can generate sparks, slag, or heat that can ignite nearby flammable materials if proper precautions are not taken.
- 3. Electrical faults, such as short circuits, overloaded circuits, or equipment failures, can cause sparks or heat that ignite nearby combustible substances.
- 4. Ships and vessels in shipyards may contain fuel tanks or other sources of flammable or combustible substances.
- 5. Malfunctioning or improperly maintained equipment, such as pumps, compressors, or machinery, can lead to fires or explosions if they generate excessive heat, friction, or sparks.
- 6. Shipyard activities involving gases or volatile substances, such as welding gases, fuel vapors, or chemical fumes, can lead to leaks or releases.
- 7. Accidents can occur due to the absence or inadequate implementation of fire prevention and safety measures.

## **STATS**

- Shipyard employees are at risk from fires, explosions, toxic gases, and fumes that can result in burns, death, and asphyxiation from a lack of oxygen. Based on data collected by the Bureau of Labor Statistics, for a workforce totaling 97,822, there is an annual average of one fatality, 110 lost workday "heat/burn" injuries, and more than three times that many total injuries due to shipyard fires.
- Most fires start in the engine room and are, in 7 out of 10 cases, caused by fuel oil leakage or short circuit of electrical equipment.
- In 7 out of 10 cases fires occur when the vessel is on passage at sea.
- The available statistics indicate that more than 60% of the victims of fires occur in general cargo ships.
- The passenger ships (including ferries RO-RO) represent only 6% of all the incidents of fire.
- A detailed analysis shows that 80% of maritime accidents are caused by human

factors, individual and organizational.