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.