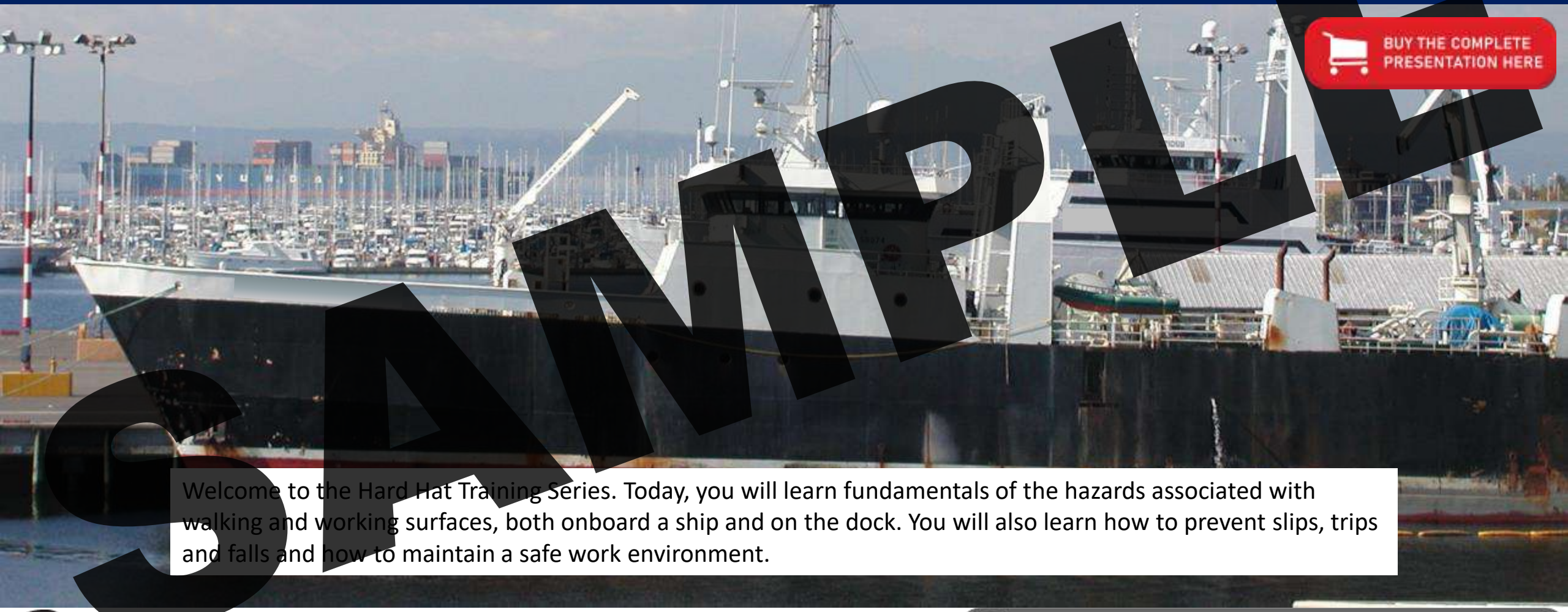
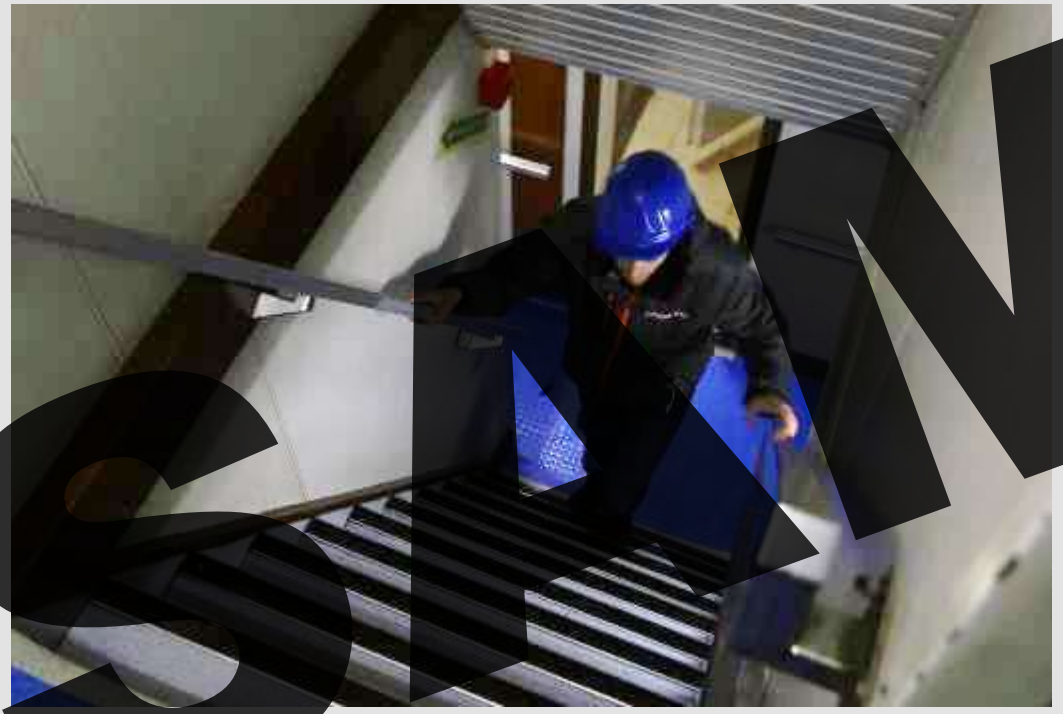
Welcome to the Hard Hat Training Series!



Welcome to the Hard Hat Training Series. Today, you will learn fundamentals of the hazards associated with walking and working surfaces, both onboard a ship and on the dock. You will also learn how to prevent slips, trips and falls and how to maintain a safe work environment.

Walking & Working Surfaces

Walking and working surfaces are any surface where workers may be expected to regularly travel or perform their jobs. These surfaces can become hazardous when inconsistencies are present that cause a slip, trip, or fall.



Slips & Trips

A slip occurs when the foot skids and a person falls backwards or forwards. These are usually caused by a wet or slippery surface. A trip is caused by an obstacle stopping the foot's motion and causing the person to fall in the direction they were moving.

Falls

Falls are a primary cause of injury and death, but they are often preceded by a slip or trip. Falls can be same level, meaning a fall on a relatively level surface, or they can be elevated falls, meaning the fall occurs from a higher surface to one below.

Elevated falls from over 10 feet are obviously dangerous, but same-level falls are often overlooked. A same-level fall has enough force to break bones; tear muscles and tendons; cause cuts, bruises, concussions; or even kill. What you land on and how you land are key factor in these types of falls, but they happen so fast, you may not have time to respond.

Did You Know?

If a worker weighing 190 pounds (about 86 kilograms) were to fall from a height of 15 feet (about 4.6 meters), it would take them little more than 1 second to hit the ground. Considering that the average human's response time is 200 to 250 milliseconds, that leaves only 750 milliseconds to react to the fall.

Those who work in the general industry or the maritime industry are both at risk for slips, trips and falls. However, as maritime industry workers, you have the exclusive risk of falling overboard into dangerous, unpredictable waters as well as the fact that a vessel is rarely perfectly horizontal and never stationary, posing some unique complications. Consider the following case study.

A seaman on a docked ship was preparing for his regular tank cleaning routine. He removed the hatch cover and the plastic grating over each man-hole to provide ventilation. Then, he began to block off the area with barrier tape.

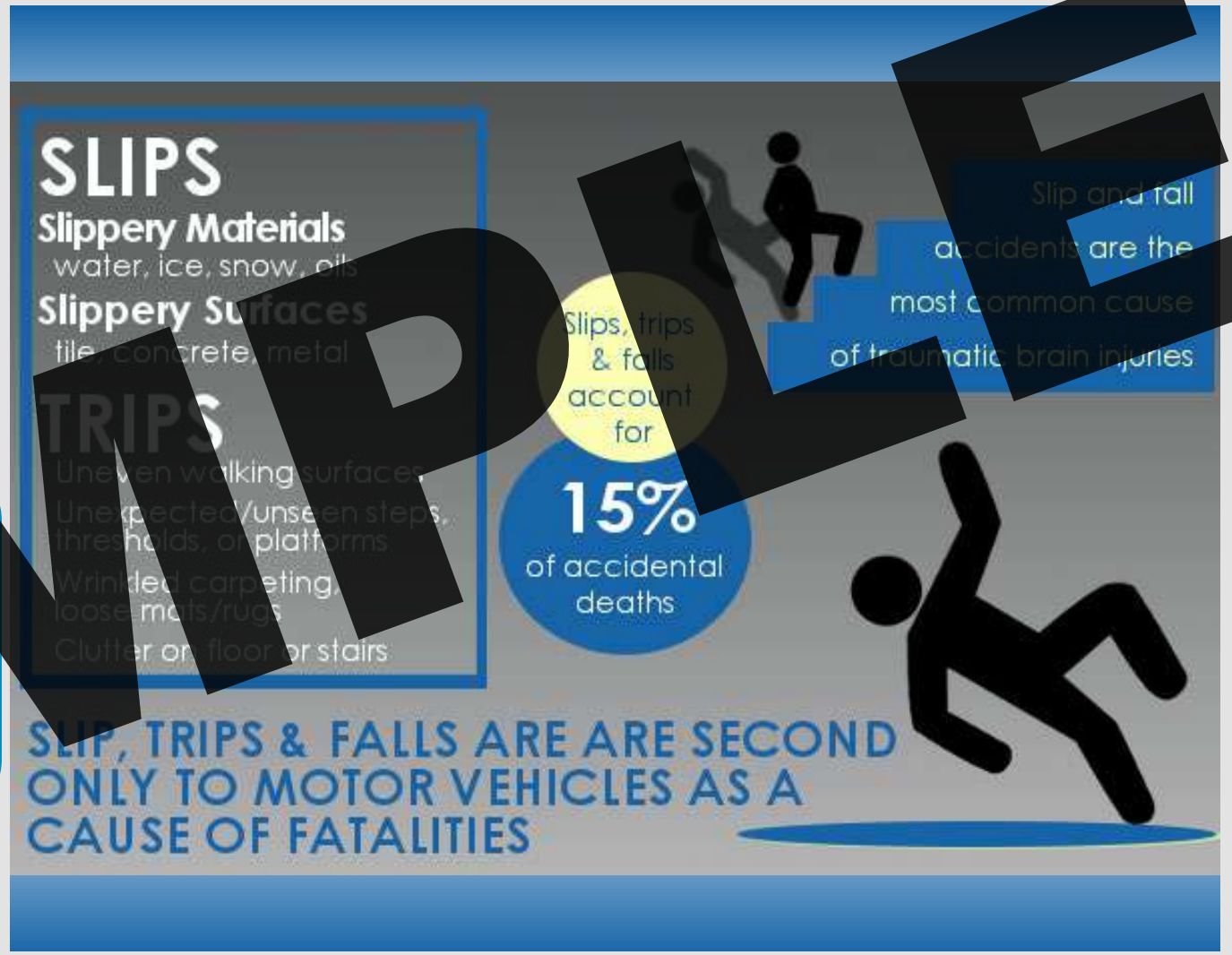
As he was taping off the area, he apparently forgot that he removed the hatch cover. He stepped backwards and fell right into one of the tanks. Another crew member was lowered into the tank to measure the oxygen levels before making a rescue attempt.

When rescuers determined the tank atmosphere was safe, they pulled the seaman out and sent him in an ambulance. The fall fractured his right knee cap, preventing him returning for three months.

This accident could have been much worse, and they often are. Statistically speaking, slips, trips, and falls, make up about 15% of all accidental deaths each year across all industries. Many of these incidents, like the one in the case study, could have been avoided had someone remained aware of potential hazards and taken steps to prevent them.

Did You Know?

According to the CDC, workman's compensation and medical costs for injuries related to slips, trips, and falls total to about $70 billion each year.



About This Training

In this training, we will discuss the various types of walking and working surfaces within the maritime industry and the different types of hazards that may be present. For this training, we have categorized these surfaces into cabin surfaces, deck surfaces, and dock surfaces. Note: some elements of these surfaces can fall into multiple categories.

Next, we will talk about personal protective equipment (PPE) and other preventative measures you can take in order to eliminate the risk of slips, trips, and falls in the worksite.

Finally, we will present some case studies based on true events to illustrate the importance of identifying hazards. We will also discuss how preventative measures could have made a difference had they been implemented.

STANDARDS

29 CFR 1915: Occupational Safety and Health Standards for Shipyard Employment

- 1915.73 – Guarding of Deck Openings and Edges
- 1915.81 – Housekeeping

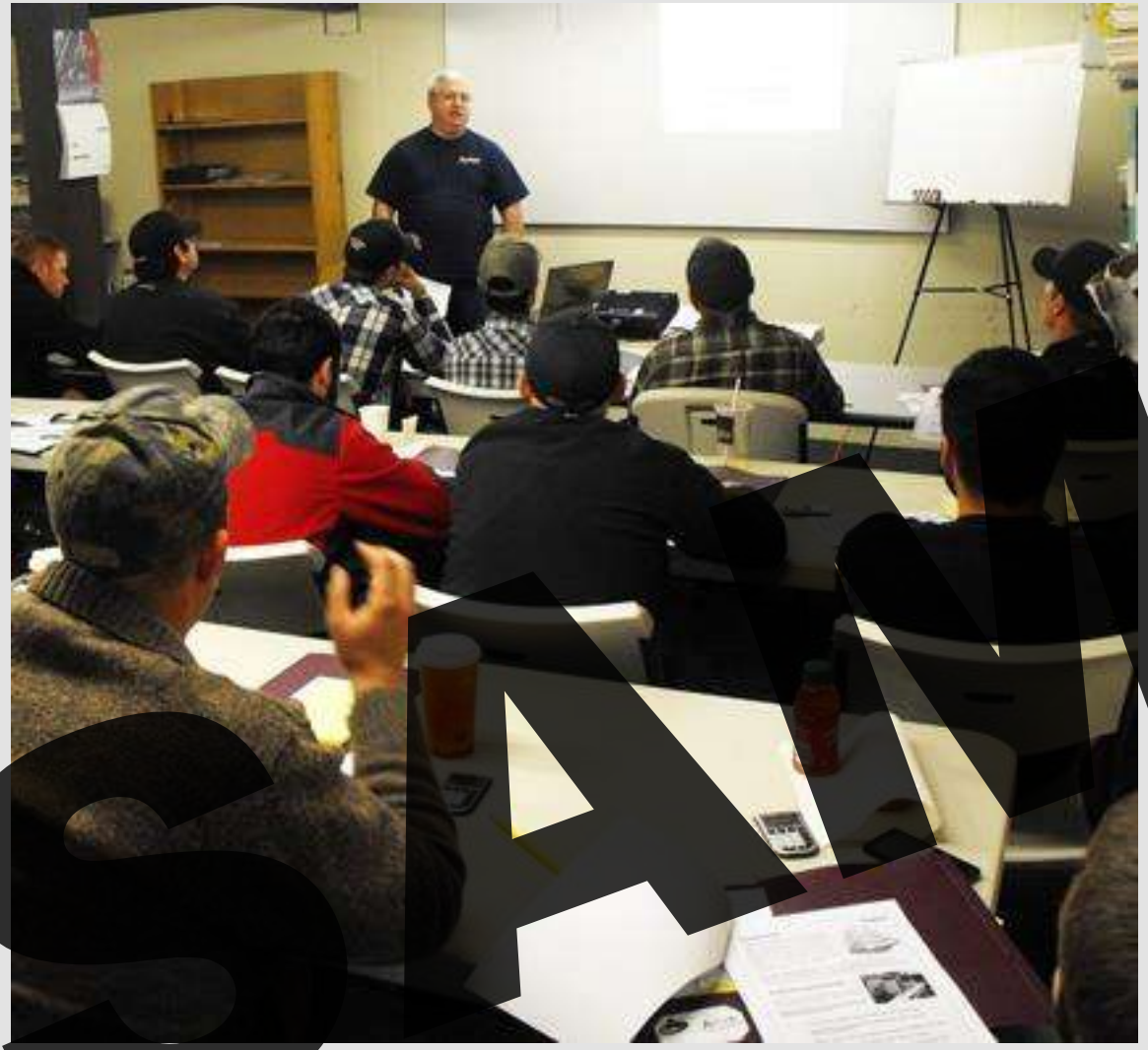
29 CFR 1917: Marine Terminals

- 1917.11 – Housekeeping
- 1917.12 – Slippery Conditions
- 1917.112 – Guarding of Edges

29 CFR 1918: Safety and Health Regulations for Longshoring

- 1918.91 – Housekeeping
- 1918.43 – Handling hatch beams and covers

Above are some general standards that pertain to walking and working surfaces within the maritime industry. Additional standards may apply, depending on the country your ship is operating under and individual company rules and regulations. It is your responsibility to know and follow all applicable laws, standards, and regulations.



Necessity for Training & Retraining

Anyone working within any industry must receive worksite-specific training prior to working on their own, and then they must be retrained periodically.

Did You Know?

Regulations specify that an operator *must* take a refresher course if any of the following apply:

- The operator is observed operating the equipment in an **unsafe** manner (e.g., no seatbelt, reckless driving, etc.)
- The operator is involved in an **accident** ***or*** a **near miss**
- The operator received a **poor evaluation** for performance
- The operator is required to **use a different type of machine** ***or*** **attachment**
- Workplace conditions have changed

Additionally, regulations state that it is the employer who is responsible for determining the frequency of refresher training.

OSHA's standards specify that in some industries, refresher training must take place every three years. Even for standards and equipment that aren't specified, it is best practice to do refresher training at least every three years. A so-called "free pass" can't be awarded based on experience, age, or time on the job. The extent of the evaluation is to be determined by the employer but should include a written and practical examination that prove continued competency.

OSHA®

Training Documentation

Initial training, as well as any evaluations or refresher courses must be documented with the name of the person or persons who taught the class or conducted the evaluation. Although OSHA doesn't require wallet cards as proof of training, many companies and worksites do require onsite proof that you have been trained. At the very least, in the case of an investigation, OSHA will want to see proof of proper and consistent training (in the way of training outlines, class lists, training goals, tests, certificates, and so on).

Cabin Surfaces