

# Abstract of a Mishap

**Mishap Type:** *Crushed by double-walled 10.5% sodium hypochlorite tank*  
**Injury:** *Fatality*  
**Type of Work:** *Tank Separation*  
**Equipment:** *Maintenance Truck*



## **DESCRIPTION OF THE MISHAP:**

- ❑ A double-walled 10.5% sodium hypochlorite tank weighing approximately 1000 lbs, being towed in an unstable condition by a nylon sling behind a maintenance truck, rolled onto an employee walking alongside and fatally crushed him.

## **DIRECT CAUSE:**

- ❑ Failure to plan, evaluate hazards, implement controls, and use safe procedures associated with material handling and rigging. Inadequate rigging of the inner tank and the lack of stabilization of the captor containment tank were the primary factors and governing causes.

## **INDIRECT CAUSE:**

- ❑ Failure to conduct an activity hazard analysis prior to commencing efforts to separate the two tanks.
- ❑ Failure to don and wear appropriate personal protective equipment (specifically, hard hats).
- ❑ Failure to properly prepare the two tanks (inner and containment) for separation.
- ❑ Presence of residual liquid chlorine the inner tank—requiring confined space entry procedures.
- ❑ Malfunctioning gas pedal on the maintenance truck.

## **ROOT CAUSE:**

- ❑ Workers assumed that because similar activities had been previously executed with no safety mishaps, there was little to no risk associated with the tasks at hand. Workers departed from procedures used in prior similar activities in an effort to quickly accomplish the task.

## **LESSONS LEARNED:**

- ❑ Potentially hazardous work activities should be adequately planned out to ensure safe work practices.
- ❑ Conduct appropriate analysis to ensure proper lifting points and techniques are used to ensure stability and safe movement.
- ❑ Conduct Job and Activity Hazard Analysis and perform Operational Risk Management for all jobs and activities, especially those involving the use of lifting points, slings and intended movement of large or heavy items.
- ❑ Don't take shortcuts in an effort to hasten a task or activity. Follow prescribed procedures.
- ❑ Use personal protective equipment (i.e. hard hats) in all field conditions/situations that involve movement of large or heavy items.
- ❑ Maintain all equipment and tools in proper working order.
- ❑ Stand clear when moving or lifting large or heavy items.
- ❑ Don't allow the success of previously conducted activities to lull workers into believing that there are no risks or consequences to actions/activities undertaken.
- ❑ When available, comply with manufacturer's recommended procedures and processes for executing tasks or activities.

**CONTACT YOUR NAVFAC SAFETY REPRESENTATIVE FOR MORE INFORMATION**