

# CASUALTY INFORMATION NO 85 - OCTOBER 2011

Norwegian Hull Club wishes to contribute to improving safety on board, focusing on Lives, Health, Environment and Assets and extracting Useful Experience. In this letter we report on the effects of "Normalisation of Deviance".

#### DEAR CAPTAIN

In this letter we want to focus on the importance of avoiding the dangerous phenomenon known as "normalisation of deviance" ("ND") on your vessel.

ND is a situation where a crew deviates from or ignores a known and accepted risk and/or standard because there is "normally" no negative outcome. Studies have shown that workers have quite accurate perception of the risks they face, but in spite of that some of them continue taking those risks. This happens in all walks of life and driving a car faster than the posted speed limit is a typical example. However, the consequences onboard a ship can be disastrous.

Let's look at a real, but typical example of this phenomenon: A couple of years ago one of our member's ships suffered an engine room fire that could have caused the total loss of that vessel.

#### **OBSERVATION NUMBER ONE**

It was a normal practice for the crew to build dams of cotton waste around items of machinery, like the fuel transfer pump, to avoid oil spreading over the tank top.

#### **OBSERVATION NUMBER TWO**

The probable cause of the fire was the spontaneous combustion of oily rags and cotton waste that had been stored both in the engine room and close to the ship's incinerator. The storage of such flammable waste near sources of heat is an extremely dangerous practice.

#### **OBSERVATION NUMBER THREE**

Despite "no smoking" signs having been clearly displayed in the engine room and engine control room, an investigation revealed that crew members had been smoking within these spaces.

This type of behaviour is an example of ND. The crew were unable to see the immediate dangers associated with ignoring clear safety rules and instructions, and they therefore disregarded the risks to which they were exposed. In this case the fire was successfully extinguished but the *Owners* and *NHC* learned some important lessons:



# WHEN TO ACTIVATE THE FIXED FIRE Extinguishing system (CO2)

The engine room was immediately abandoned when the fire alarm sounded and flames and smoke were detected. The main engine was stopped, as were the engine room ventilation fans and the fuel oil pumps. After the crew members had mustered, they rigged fire hoses for boundary cooling of the engine room casing and the funnel. However, the hoses were rigged through an engine room skylight which, when opened, introduced oxygen to the space and caused the fire to grow in size and intensity. On this occasion a delay in closing down the engine room ventilation and activating the fixed fire extinguishing system nearly caused the total loss of the vessel. In any case, such a delay can result in the significant growth of a fire and of the consequential damage. The lesson here is that one should act as soon as the engine room has been abandoned and all personnel have been accounted for.

### THE IMPORTANCE OF RECORD KEEPING

The details and timings of key events were not recorded during the incident. Similarly, the crew failed to keep a proper record of when fire fighters wearing breathing apparatus were allowed into the engine room. Keeping an accurate record of when fire fighters enter spaces and when CO2 is applied is extremely important in order to avoid mistakes and ensure the safety of those on board.

Cont. on next page ...



Whenever possible, a crew member should be assigned the task of keeping an accurate chronological record of the emergency as it develops and of any action that is taken.

## THE WAY FORWARD

The rules and regulations governing safety at sea have been based on the lessons learned over many years and from many casualties. Ignoring these rules may cause injury and loss of life as well as compromise the success of an insurance claim. We must be willing to learn from other people's mistakes, and not wait for us to make them ourselves. In order to avoid ND, a Master and his shipboard management team should make every effort to ensure that safe working practices are observed at all times. Masters should also ensure that crew members are provided with appropriate and regular training to maintain an awareness of the dangers that occur when safety rules are ignored.

We would be grateful if you would discuss the contents of this letter with your officers and crew and we thank you for your continued effort and support.

Bon voyage.