



CASE STUDY

Vela International Marine

How Management Credibility and Safety Performance Rose While Injury Severity Dropped

Situation

In 2003, Saudi Aramco's oil tanker owner and operating subsidiary, Vela International Marine, was looking for a proactive way to address ship crew safety. An injury at sea means diverting a ship toward the nearest land-based emergency airlift, sailing sometimes hundreds of miles off course. Since lost-time injuries literally stop production, Vela had an additional and unique reason for considering safety a critical matter.

Vela's safety procedures were in full compliance with the international Safety Of Life At Sea convention and the company wanted to be more effective at preventing injuries. Because regulations already constituted a considerable burden on ships' officers, the company decided on another tack: Behavioral Accident Prevention Process® (BAPP®) technology. Vela's Fleet Safety Officer Adam Fitch decided that the ships' senior officers should still be active in the implementation since the distinctive character of maritime culture gives officers leverage which could be applied readily to supporting the

safety process. Commercial shipping is characterized by a strict hierarchy based on historical precedence; the captain's word is law, and officers and crew maintain their positions, even socially, according to rank.

Solution

Vela enlisted BST to pilot the first maritime, employee-driven safety initiative on three of Vela's VLCC—the Venus Glory, Orion Star, and Carina Star. BST customized training for each crew (ratings, junior officers, and senior officers) ensuring fluency in a common safety terminology. The company selected three captains to act as internal consultants (INCON®'s) for the whole fleet. Trained to know the safety process from the inside out, they also possessed comprehensive knowledge of the vessels and shipping issues and would train the remainder of the fleet if the pilot project proved successful.

“... We decided if we’re going to do this, we’re going to do this properly.”

One junior officer from each VLCC took on a facilitator role, acting as the process liaison to the ship’s senior officers. Translated materials were necessary for the various languages of Vela’s multicultural crews. Since crews typically split up and reform, training courses were land-based. They named the process VALUE (Vessel Accident Limitation Using Education) and gained buy-in through the hands-on development, by crew members, of an Inventory for Critical Behaviors® (ICB®) list. The list serves as a standard guide in safety observations.

Process data is used to remove barriers to safe work or to neutralize exposures. One example of this is Vela’s VALUE observation data indicating the need to retrofit certain ship equipment. Employees couldn’t safely perform particular tasks near the two mid-ship cranes each VLCC is equipped with, or at the working interface of the Vapor Recovery System (VRS). To access and manipulate a valve on this system, a crew member had to climb over railings and pipes and work from an awkward position on a ladder. “Eventually somebody was going to fall off,” said one ship’s captain. VALUE has not recorded any injuries on the VRS’s since the retrofits.

Because of the pilot project’s success, Vela rolled out the VALUE process to its entire fleet of 27 VLCC.



At a Glance:

- Founded in 1984 as a subsidiary of Saudi Aramco, Vela has the fifth largest fleet of Very Large Crude oil Carriers (VLCC).
- The company employs 1000 seagoing personnel and 150 shore staff.
- Primary shipping routes for Vela are from the Middle East to the US Gulf Coast and to Europe.

Results

By the end of 2005, with nearly 100% of the workforce trained as safety observers, the company attained an unprecedented 5.25 million hours without a lost time injury. The VALUE process data has affected even ship design. The New Buildings Department, the group within Vela responsible for designing new ships, incorporated data generated by the VALUE process. Fitch remarked, “We put a lot more money into a new ship. We decided if we’re going to do this, we’re going to do this properly.”

Vela also reported improvements in culture within 24 months of the process roll-out. Management credibility and overall safety performance rose while injury severity on the entire fleet dropped. Thanks to the process, there is a new willingness on the part of employees to speak to one another about safety and raise safety concerns even with their officers. Fitch now receives emails from fleet ships reporting on cultural improvements, improvements that are related to VALUE.