



Ship Type: Chemical Trade Area: US Gulf

Bulletin 223 - 12/01 - Chemical Tanker Claims - Over pressuring of tanks with nitrogen

There have recently been a series of reports in the US Gulf of ruptured cargo tanks on chemical tankers. A wide range of damage has been reported – from loss of cargo containment, buckled deck structure, buckled corrugated tank bulkheads, loss of a cargo hatch - and the death of a pumpman who was killed on opening a tank lid..

The cause of all these accidents: *Over-pressuring of tanks due to the uncontrolled vaporisation of liquid nitrogen ashore.*

In the instances cited, the terminal had insisted on a closed loading procedure meaning that all tank lids and butterworth hatches be closed. The terminal then delivered high pressure nitrogen purging, padding, line clearing and cargo to the ship without the vessel knowing the delivery volume or pressure.

While the consequences initially are the owner's problem, cargo owners, the facility, hull and machinery underwriters and P&I are all affected.

In standard tanker voyage charterparties - and in particular ASBATANKVOY - the risk of pumping in the cargo is on the charterers. Clause 10 of part 2 of this charterparty states:

10. PUMPING IN AND OUT. The cargo shall be pumped into the vessel, at the risk and peril of the charterers...

Whilst this may be of some comfort to owners from the legal and insurance point of view, the obligation to operate a safe system as well as loss of time, repair costs and risk to crew, are in the first instance, owner's concern.

The advice to chemical tanker owners must therefore centre on managing the nitrogen risks which includes seeking information about nitrogen delivery rates and pressures used by shore facilities, and operating a system of pressure monitoring. This may include monitoring of the tank vapour space volume and nitrogen entry point, opening the ullage hatches/lids (for purging) and having pressure control regulators and flow control valves/PV valves.

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