

# Maritime Operations

## SAFETY BULLETIN – 06 SEPTEMBER 2005 #2

### RECOMMENDATIONS FOR SHIPS CARRYING FUMIGATED BULK CARGOES

Notice to operators, ship owners, charterers, masters, agents, port and harbour authorities, shippers, bulk terminal operators, fumigators, fumigant manufacturers and all people responsible for fumigating bulk cargoes.

#### Introduction/Background

This Safety Bulletin has been produced to bring to the attention of ship's masters, owners, agents and port or terminal operators the dangers involved in the loading, transportation and discharge of fumigated solid bulk cargoes.

#### Main Points

IMO at DSC/Circ11 (available at the IMO website: <http://www.imo.org>) highlights the following points:

- There may be an incorrect assumption that the concentration of the toxic fumigant in the holds and access ways of the ship is sufficiently low enough to avoid safety and health risks to ship and shore personnel or enforcement officers when the ship is loading or arrives in the port of discharge;
- There are reported incidents where employees have been exposed to fumigants, usually Phosphine and Methyl Bromide, causing health problems; and
- Ships containing bulk cargo under fumigation, unlike in container transport units (CTUs), have no requirement to be labelled as such, and therefore may not be visibly recognised as a potential health and safety risk. It should be ensured that Fumigation warning signs are conspicuously displayed on cargo units or spaces under fumigation.

#### The Safe Use Of Pesticides On Ships

The International Convention for the Safety of Life at Sea (SOLAS) regulation VI / 4, requires that appropriate precautions are taken in the use of pesticides in ships, in particular for the purposes of fumigation.

Where pesticides are used in the cargo spaces of ships prior to, or following a voyage, the IMO publication *Recommendations on the Safe Use of Pesticides in Ships* (2002 Edition), available at [sales@transpacific.co.nz](mailto:sales@transpacific.co.nz), must be complied with. These regulations define 'the use of pesticides' to include the fumigation of cargo spaces and of cargo, in port, or in transit, and in any part of the ship or cargo so affected as a consequence of their application or use, as referred to in the 'Recommendations'.

To ensure compliance with the *Recommendations*, all ships proceeding to a port in New Zealand, carrying solid bulk cargoes under fumigation, even if ventilation of the cargo has taken place during the voyage, must prior to arrival and in general not less than 24 hours in advance, inform both the harbourmaster and port facility operator that the bulk cargo has been fumigated. This information must be provided by either the ship's master, owner or the agent.

In cases where the presence of personnel in cargo spaces is required to ensure that fumigation tablets have fully decomposed before arrival at the discharge port, it is important that the ship's master ensures that adequate respiratory protection (e.g. self contained compressed air breathing apparatus) is worn until all fumigation residues have been removed and the spaces have been thoroughly ventilated.

On arrival at any port in New Zealand where fumigated bulk cargo is to be discharged, the master must establish the requirements of the port facility operator regarding the handling of fumigated cargoes before any cargo is discharged. Before entry of fumigated cargo spaces, trained personnel from a fumigation company or other competent persons, wearing respiratory protection, must carry out careful monitoring of the spaces to ensure the safety of personnel. The

monitoring values must be entered in the ship's log book. The fumigation is not complete until the holds and cargo have been ventilated and tested and a certificate issued by a competent person stating that the cargo and holds are free from harmful concentrations of gas.

When the ship is found to be free of fumigants and certified as such, all warning signs should be removed. Any action in this respect should be recorded in the ship's log book.

Precautions and procedures under the ship's safety management system with regard to the entering of enclosed spaces should be taken in to account. Employers of shore personnel working in enclosed spaces have a direct responsibility under the Health and Safety in Employment Act 1992 to ensure that these workplaces are safe for entry and continue to be safe to work in.

The International Safety Management (ISM) Code requires ships to develop plans for key shipboard operations concerning the safety of the ship and the prevention of pollution. These plans must include safety procedures for fumigation if the ship is likely to carry solid bulk cargo that may require fumigation.

Reception facilities are available in New Zealand ports for disposal of used fumigants and arrangements for their use should be made before arrival at the first port of discharge.