



TO: ALL SHIPYARD OCCUPIERS

**SAFETY CIRCULAR - SAFETY MEASURES FOR THE CARRYING OUT OF HOTWORK ONBOARD OIL TANKERS AND PETROLEUM PRODUCTS OR CHEMICAL CARRIERS**

In view of the recent flash fire onboard a crude tanker at Keppel Shipyard (Benoi Yard) on 29 May 2004, which claimed seven lives, the Ministry would like to draw your attention to hot works carried out onboard oil tankers and chemical or petroleum product carriers.

2 Hot works carried out onboard these vessels are hazardous operations. This could result in fire and explosion giving rise to serious and fatal injuries.

3 It is therefore important that hot works on board such vessels must be controlled and properly co-ordinated. The procedures for hot work and the requirements of the Factories (Shipbuilding and Ship-repairing) Regulations, including the prescribed duties of various parties involved in the application and approval of hot work permits, must be strictly adhered to at all times.

4 All shipyards are advised to review their control measures on hot work to ensure that such work can be carried out safely. Shipyards are advised to implement the following measures:

- (a) To conduct periodic testing of the atmosphere of the confined spaces, where hot works are being carried out, for presence of flammable gas or vapour, adequacy of oxygen content and presence of toxic airborne substances, prior to entry by any person. The test shall be carried out at least **once in every 6 hours** (Instead of 8-hour interval presently adopted by shipyards). However, if the confined spaces have been vacated for more than 30 minutes, re-testing of the atmosphere of the confined spaces must be conducted prior to resumption of any hot work.
- (b) To equip each group of workers carrying out work in a confined space with at least one suitable continuous gas monitoring device with an audible alarm function. Additional gas monitoring devices should be provided if the number of workers in the group is large. Workers who are issued with the devices must also be briefed on its correct operation, the interpretation of the gas monitoring results and the course of action they must take when the audible alarm sounds;

5 All shipyards are instructed to remind hot-work safety assessors on the importance of their roles in inspection and certification of the work place intended for hot work. Hot-work assessors are also to ensure that any sludge or other residues liable to give off flammable vapours are removed before certifying the confined space is safe for hot work.

6 You are hereby instructed to conduct briefings to remind your workers and contractors to closely follow the safety procedures.

Issued by  
**The Chief Inspector of Factories**  
**Ministry of Manpower**

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