

JTSB Safety Recommendation to the Ok Tedi Mining Limited

April 27, 2012

Cargo ship “SINGAPORE GRACE”
fatality of workers

Occurred at Hiroura A wharf, Raw Material Acceptance Wharf,
Nikko Smelting & Refining Co., Ltd. , Saganoseki Smelter and Refinery,
wharf of port of Saganoseki, Oita City, Oita Prefecture, Japan
on June 13, 2009

It is considered probable that this accident (the primary, the secondary and the tertiary accidents) occurred, because while the cargo ship “SINGAPORE GRACE” was berthed at the private wharf for discharging copper sulfide concentrate loaded into cargo hold No.3, one of the workers entered into the cargo hold which had become oxygen-deficient and developed anoxia fell.

Afterwards other workers who went to rescue him also developed anoxia fell in the cargo hold.

It is considered probable that reason why the air of cargo hold No. 3 was not replaced by outside air and the oxygen-deficient condition remained after opening the hatch cover was the following:

- Odorous gases, heavier than air, generated by the floatation reagent were not replaced by air and accumulated at the lower layer of the hold

In view of the results of this accident investigation (the primary, the secondary and the tertiary accidents), the Japan Transport Safety Board recommends the Ok Tedi Mining Limited as the shipper to take the following measure for the purpose of making known to the person that the properties of floatation reagents adhering to copper sulfide concentrate for safe transportation and cargo operation:

In case of the possibility of the existence of floatation reagents adhering to copper sulfide concentrate, it is recommended to the Ok Tedi Mining Limited as the shipper to submit information (Material Safety Data Sheet, etc.) on floatation reagents in addition to information of copper sulfide concentrate (Material Safety Data Sheet, etc.) to ships and consignees in order to make the properties and the risks of copper sulfide concentrate and floatation reagents known to ships and consignees.