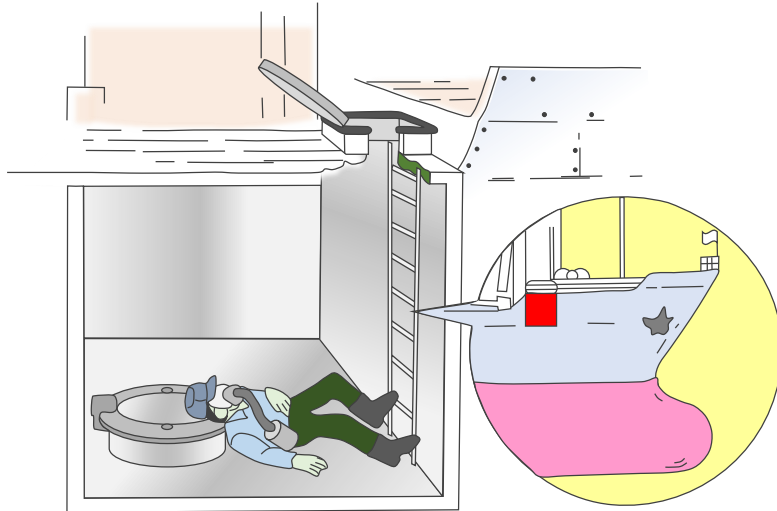


Case involving death due to anoxia after opening hatches following wood fumigation in a ship cargo hold



[Location of accident]

While exhausting fumigant gas after wood fumigation inside a ship

[Cause of accident]

Gas concentrations in holds in which fumigation had been performed the previous day were measured in the presence of a quarantine officer and the effects of fumigation confirmed. At that point, workers began opening the hatches and other openings. One individual who failed to return; they eventually found a companionway with the hatch open on the deck. On peering into the companionway, they found the victim face up, wearing a gas mask.

While the fumigant gas had been measured, oxygen concentrations had not been checked. The worker had fallen victim to oxygen deficiency.

[Damage/injuries]

The victim died of anoxia.

Extract from [Preventive measures]

[5] Safety measures must be implemented to protect against anoxia, poisoning from specific chemical substances, and fire or explosion depending on the specific circumstances and the materials used at the work location.



Riken Keiki Recommendations

On cargo vessels, the gases to which attention must be paid will vary depending on the particular loading/unloading or other work involved. Protective measures must be taken against carbon monoxide and hydrogen sulfide poisoning and against combustible gases, in addition to hazards such as toxic fumigant gas and oxygen deficiency.

We recommend deploying portable single unit gas monitors capable of detecting multiple gases to confirm safety.