

PREFUMIGATION TECHNIQUES TO IMPROVE SAFETY AND
EFFICIENCY OF PH₃ GRAIN TREATMENT IN VESSELS' HOLDS
DURING A VOYAGE

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Safety to the crew and efficiency of PH₃ fumigation of grain in a vessel's holds during a voyage may be ensured only by the condition that all leakages of the fumigant are controlled.

Prefumigation techniques enabled us to solve this problem.

The techniques employed during prefumigation are as follows:

Before loading, the empty holds are filled with the insecticide fog. Then, insecticide particles leaking on the deck or in working and living areas are detected and located with a special instrument and are marked accordingly.

After the fumigant has been applied into the grain and the hatches of the holds have been closed, the places marked as having leaks receive additional sealing.

The experiment on vessel "MARSHAL GRECHKO" showed that there were no leakages of the fumigant from holds checked by the prefumigation procedures. On the contrary, leakages were found only from holds where prefumigation procedures had not been used.