

MARINE DEPARTMENT NOTICE NO. 167 OF 2015

(Marine Industrial Safety)

An operator of excavator died after the machine fell into water from a barge

The Incident

1. A barge was berthed at a marine construction site of an artificial island. Two excavators were operated on the barge for discharging public fill to trucks.
2. At the time of the accident, it was northeasterly wind of force 4 on the Beaufort scale that caused the barge to rock. An operator of one of the excavators operated the bucket to scoop public fill from the barge to a truck. Suddenly, the excavator toppled and fell overboard when its bucket and the associated connecting arm were swung outward beyond the side of the barge. The operator inside the control cabin of the excavator could not escape and fell into the sea together with the excavator. He was eventually rescued but was certified dead.
3. The investigation revealed that the main contributory factors to the accident were as follow:
 - The excavator was not properly secured on the barge before the operation in accordance with section 26 of the Merchant Shipping (Local Vessels) (Works) Regulation;
 - the excavator fell into the sea from the barge as a result of shifting of the centre of gravity of the excavator when its bucket and the associated connecting arm were swung outward beyond the side of the barge plus the barge's rolling motion induced by wind; and
 - the operator of the excavator did not have proper safety training in accordance with section 54 of the Merchant Shipping (Local Vessels) (Works) Regulation.

Lessons learnt

4. In order to avoid recurrence of similar accident, it is important that : -
 - (i) an excavator used on board ship for loading and discharging of cargo or other materials should be properly secured; and

- (ii) operators of excavator must be provided with appropriate safety training and hold a shipboard cargo handling basic safety training certificate.

H. M. TUNG
Director of Marine (Ag.)

Marine Department
Government of the HKSAR
Date: 24 November 2015
Action file ref: L/M No. MAI/P 903/060-2014