

Electrocution of a fitter while performing electric arc welding repair on board Hong Kong registered vessel *Pacific Explorer* on 20 November 2009

1. The Incident

1.1 At about 1450 to 1517 on 20 November 2009, a fatal accident happened on board the Hong Kong registered general cargo vessel *Pacific Explorer* in which a fitter was electrocuted while performing electric arc welding repair on the fire main on the deck.

1.2 After the vessel had departed the port of Jakarta for Beneta Bay in Indonesia on 19 November, two fitters started to carry out repair work on the deck fire main. While the repair work was not finished on 19 November, they continued the work on 20 November.

1.3 On 20 November, one of the fitters finished his part of welding in the morning and was assigned other repair work. The other fitter was working alone under occasional supervision by the Chief Officer. The fitter, who had difficulty in making a good weld to the underneath of the pipeline, was still working on it in the afternoon until around 1450 to 1517.

1.4 At 1517, he was sighted lying unconsciously on his back adjacent to the work place. The ship's position was approximately 06° 44'S 114° 00'E. Despite efforts by the crew to recover him, there was no sign of life in him and the rescue stopped at around 1640.

1.5 The vessel arrived at Benete Bay at 0742 on 21 November 2009. The deceased was confirmed dead and landed ashore at 1223 on 21 November 2009 for autopsy and subsequent repatriation back to his home country.

1.6 The investigation revealed that the main contributory factors to the accident were as follows:-

- while performing electric arc welding, the body and clothing of the deceased were wetted by perspiration and seawater due to the hot and damp weather together with seawater leaking from the fire main;
- personal safety awareness of the deceased was lowered while working under pressure and stress; and
- the senior officers did not monitor the repair work closely and failed to take decisive action to intervene and correct the situation when unsafe practices and conditions were found to have developed before the accident.

2. Lessons

2.1 The lessons learnt from this accident are:

- risks should be properly assessed before carrying out any electric arc welding work on board ships, and the relevant safe working procedures and instructions of the company, as well as the Code of Safe Working Practices for Merchant Seamen should be followed; and
- the supervisors of electric arc welding operations on board ships should ensure all safety precautions for the work are complied with, and should immediately intervene and stop any unsafe practices developed during the work.