Fatal accidents during performing of electric arc welding work on board ships

To : Shipowners, Ship Managers, Ship Operators, Masters and Officers

Summary
Two fatal accidents during electric arc welding operations were happened on board Hong Kong registered ships. This information note draws the attention of Shipowners, Ship Managers, Ship Operators, Masters and Officers to the lessons learnt from these accidents.

The Incidents

1. A fitter was carrying out electric arc welding repair on the deck fire main without supervision. The welding machine was located at a distance from the place of work and the electric return cable was clamped to ship structure beside the machine. The fire main was close to deck surface and it ran beside the hatch coaming, making it difficult for the fitter to weld on the underneath of the pipeline. His body and clothing was wetted by perspiration and seawater leaked from the fire main. Notwithstanding that the fitter would have come into contact with the ship structure during welding, no insulation material was used to protect himself from the electric current. As a result, he was electrocuted.

2. In another incident, a fitter was carrying out electric arc welding repair on the port side bulwark on main deck. The officer was not at the scene supervising the work. Two sailors were assigned to assist the fitter and helping him cut some steel plates in the vicinity. The vessel was sailing against the winds. However, when the ship’s course was changed, the port side of the vessel became facing the winds and seawater rushed up the deck at the workplace where the fitter was performing the welding. His body was wetted and he suffered electric shock. He was airlifted to the hospital and was certified dead later.

3. The investigation reports of the two accidents can be found in Marine Department website (http://www.mardep.gov.hk/en/publication/ereport.html).

Lessons Learnt

4. The important lessons to be learnt from these incidents 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.

5. The attention of Shipowners, Ship Managers, Ship Operators, Masters and Officers is drawn to the lessons learnt above.

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