

## BEST PRACTICE

LOCATION: Marine & ship to shore    ARTICLE YEAR: 2006  
ACTIVITY: Marine Operations    COMPANY: United Marine Aggregates Limited  
SUB ACTIVITY: Dredging    COMPANY LOCATION: Ridham, Kent  
BEST PRACTICE No: BP410    COMPANY TEL: 01795 432310  
COUNTRY OF ORIGIN: United Kingdom

### TITLE

**Retractable handrails for quayside walkway**

### ARTICLE

A removable barrier around the quayside walkway has been developed by United Marine Aggregates which prevents a fall from height during mooring operations.

The quayside walkway is 2.6 metres higher than the stockyard, requiring handrails to be removed to allow ships' discharge conveyors access to the shore-side receiving hopper. Previous designs had progressed from posts and chains to slot-in barriers and most recently sliding panels, each presenting its own limitations and hazards. In response to near hits and a revision of risk assessment, a working party was formed involving wharf staff of all levels to evaluate the hazards involved.

The group identified a specification and led the development of retractable handrails which revolve downwards around a pivot point that is easily operated from ground level.

Before retracting the handrails, pedestrian access to the quayside is restricted by means of barriers and warning signs. The operation can easily be carried out by two people, controlling the movement with a lever section protruding at 90° to the main handrail section. After discharge, the procedure is reversed with the handrail sections secured by means of spring-loaded bolts and pedestrian barriers removed.

### ARTICLE IMAGES

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**Retractable handrails**