

G5 **Fail-close action of Emergency Shut Down (ESD) valve**

(New
Dec 2022)

1 **General**

1.1 The present texts specify the arrangements for emergency shut down valve (hereinafter referred to as ESD valve) installed in cargo piping of ships engaged in the carriage of liquefied gases to stop cargo flow in the event of an emergency, either internally within the ship, or during cargo transfer to other ships or shore facilities.

1.2 This UR addresses the fail-close action of ESD valves in association with the requirement in 18.10.2.1.2 of the IGC Code* for ESD valves of the fail-closed type.

*As amended by IMO Resolutions MSC.370(93), MSC.411(97) and MSC.441(99).

2 **Requirements**

2.1 When ESD valve is actuated by hydraulic or pneumatic system, the following shall be complied with.

1. Audible and visible alarm shall be given in the event of loss of pressure that causes activation of fail-close action. The alarm shall be provided in a normally manned control station (e.g. Cargo Control Room and/or the navigation bridge, etc.).
2. The following conditions shall also be complied to ensure the fail-close action:
 1. Failure of hydraulic or pneumatic system shall not lead to loss of fail-close functionality (i.e. activated by spring or weight); or
 2. Hydraulic or pneumatic system for fail-close action shall be arranged with stored power and separated from normal valve operation.

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Note:

1. This Unified Requirement is to be uniformly implemented by IACS Societies on ships constructed on or after 1 January 2024.