

## SHIP-SAFETY-DIVISION International Safety Management (ISM)

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**To: All shipowners, shipmanagers, designated persons of German ships**

**Sub.: Guidance on ISM Code section 10.3 “Identification of Critical Equipment”**

1. This circular is to set out recommendations with respect to identification of critical equipment as recent analyses of ISM audits indicate that companies need guidance in meeting the requirements of sections 10.3 and 10.4 of the ISM Code.

2. Section 10.3 of the Code states the following:

*The Company should establish procedures in its safety management system to identify equipment and technical systems the sudden operational failure of which may result in hazardous situations. The safety management system should provide for specific measures aimed at promoting the reliability of such equipment or systems. These measures should include the regular testing of stand-by arrangements and equipment or technical systems that are not in continuous use.*

3. To comply with section 10.3, the Company should develop and implement a formal procedure, which defines the process to produce a list of equipment and technical systems the sudden operational failure of which may result in hazardous situations. The responsibilities for the identification of critical equipment should be defined and indicated in the procedure. As guidance the Company should consider the following measures that may assist in generating a useful list of critical equipment:

- identification of shipboard operations which are vital to safety and to the protection of the environment
- assessment of risks especially during critical shipboard operations
- root cause analysis in the way of near-miss/accident investigation

4. When critical equipment has been identified, it is essential to establish safeguards to ensure functional reliability or the use of back-up arrangements in case of sudden operational failure. These specific measures must include the regular testing of stand-by equipment or technical systems that are not in continuous use. Further safeguards may be the following:

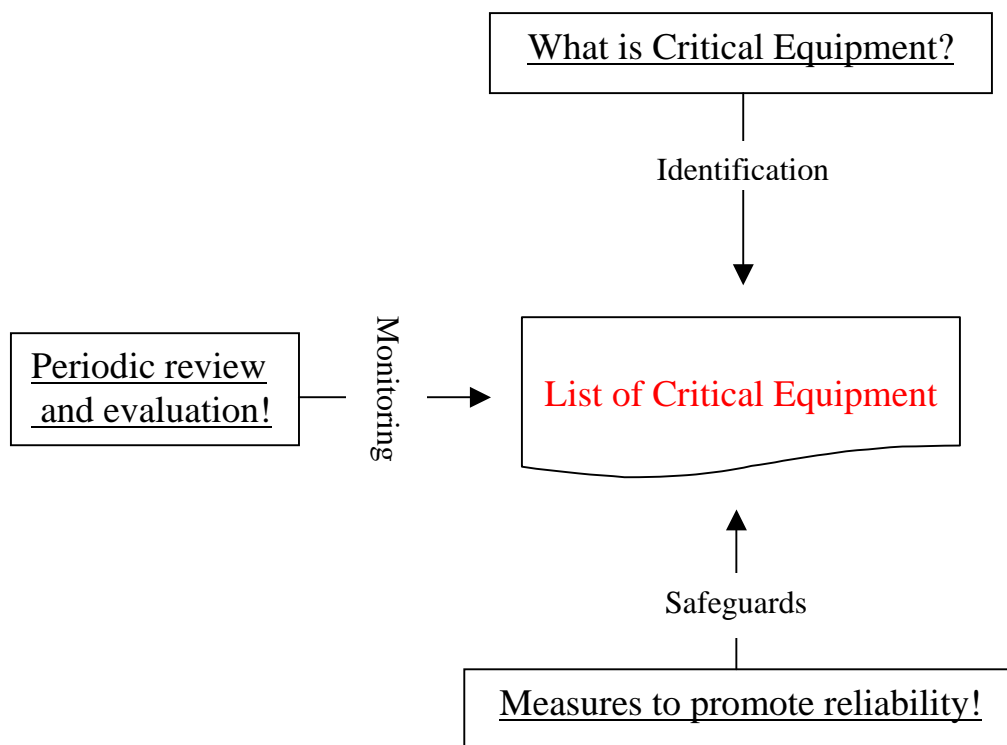
- regular testing of alarm functions
- preventive maintenance of critical components
- alternate running of stand-by arrangements

- lubricating and fuel oil analysis
- filter cleaning
- inspections/surveys at appropriate intervals
- additional shipboard procedures to ensure redundancy during critical operations

In order to comply with section 10.4 of the ISM Code, the maintenance activities that promote the reliability of critical equipment should be integrated into the ship's maintenance plan.

5. The list of critical equipment should be periodically reviewed and, when needed, amended based on the outcome of SMS reviews, internal/external safety management audits and reported incidents/accidents

A possible process for the implementation of ISM Code section 10.3 is shown below.



6. Shipowners, shipmanagers and designated persons are requested to take note of this circular and ensure compliance with sections 10.3 and 10.4 of the ISM Code.