



Instruction to RO's

Nr. 17 Unattended Machinery Space-notation (UMS)

Date entry into force: 01 September 2017

1 General

The Maritime Authority of Curaçao has authorized the Recognized Organizations (RO) to perform the renewal UMS surveys from the 1st of January 2013.

For all ships, including less than 24 m., evidence must be provided that the alarms and other functions are checked/tested regularly and if the Engine room installation is suitable for unmanned service.

In case the Engine room (E.R.) is not suitable for unmanned services, the composition of the crew should be adapted for manned E.R services.

For ships with a length of less than 24m and with a propulsion output of less than 750kW, where the RO considers the application of the MAC requirements or equivalent requirements of the classification society not possible, the RO submits to the Maritime Authority of Curaçao a customized proposal for compliance with the requirements as far as reasonably practicable, as developed by the owner.

2 Remote control of propulsion machinery from the navigating bridge

1. The speed of the vessel, the direction of thrust and, if applicable, the pitch of the propeller shall be fully controllable from the navigating bridge under all sailing conditions, including manoeuvring.
2. The remote control shall be performed, for each independent propeller, by a single control device, with automatic performance of all associated services, including, where necessary, means of preventing overload of the propulsion machinery.
3. The main propulsion machinery shall be provided with an emergency stopping device on the navigating bridge, which shall be independent of the remote control system.
4. Remote control of the propulsion machinery shall be possible only from one location at a time; at such locations interconnected control positions are permitted. At each location, with the exception of fully mechanical remote control systems, there shall be an indicator showing which location is in control of the propulsion machinery. The transfer of control from the navigating bridge and machinery spaces shall be possible only in the propulsion machinery space or the machinery control room. This system shall include means to prevent the propelling thrust from altering significantly when transferring control from one location to another. For small ships as far as practicable and reasonable.
5. It shall be possible to control the propulsion machinery locally, even in the case of failure in any part of the remote control system, except in case of two or more independent propulsion systems.



6. The design of the remote control system, with the exception of fully mechanical remote control systems, shall be such that in case of its failure an alarm will be given. The preset speed and direction of thrust shall be maintained until local control is in operation, except for DSC (dynamically supported crafts) and HSC (high speed crafts) for which the speed shall be reduced to zero, until local control is in operation.
7. On the navigating bridge, indicators shall be fitted for the propeller speed or motor speed, and the pitch position in the case of controllable pitch propellers.
8. The number of automatic consecutive start attempts which fail to start the auxiliary engines shall be limited in order to safeguard sufficient starting air pressure or battery power for starting locally. No automatic start for the main engine shall be provided after failure. An alarm shall be provided to indicate low starting air pressure or low battery, which shall be set at a level to permit further main engine starting operations.

3 Alarm system

9. An alarm system shall be provided indicating any fault requiring attention and shall comply with the following:
 - 9.1 The alarm system, located at a suitable position on the navigating bridge, shall indicate visually and audible each separate alarm. A common alarm (e.g. buzzer) may be accepted.
 - 9.2 The alarm system shall, in so far as practicable, be so designed that a failure in the system itself will also produce an alarm.
10. The alarm system shall be continuously powered, from the normal supply and from an independent power source (UPS or battery).
11. The presence of power shall be visually indicated on the alarm panel.
12. The alarm system shall be able to indicate at the same time more than one fault and the acceptance of any alarm shall not inhibit another alarm.
13. Alarms shall be maintained until they are accepted and the visual indications of individual alarms shall remain until the fault has been corrected, when the alarm system shall automatically reset to the normal operating condition.
14. The necessary alarms shall be provided with a delay time, as appropriate. Unnecessary activation of alarms during manoeuvring shall be prevented.

4 Special requirements for machinery, boilers and electrical installations

15. Where electrical power is required in order to maintain the propulsion and steering capabilities of the vessel, appropriate arrangements shall be provided to ensure to electrical power supply in case of failure of the generator in operation.
16. Automatic control and alarm system
 - 16.1 The control system shall be such that the services needed for the operation of the main propulsion machinery and the auxiliaries are ensured through the necessary automatic arrangements.



- 16.2 An alarm shall be given on the automatic changeover.
- 16.3 An alarm system complying with Reg. 9 to 14 shall be provided for all-important pressures, temperatures and fluid levels and other essential parameters.
- 16.4.1 On the navigating bridge an alarm panel shall be provided, which shall indicate individually at least the following alarms:
- a. Low lubricating oil pressure of the propulsion engine;
 - b. High cooling water or air temperature of the propulsion engine;
 - c. Low level cooling water expansion tank of the propulsion engine;
 - d. Low oil pressure of the reversing gear or pitch control system;
 - e. High bilge water level in the machinery space;
 - f. Fault of the remote control system if not fully mechanical;
 - g. Fuel leakage of high pressure fuel lines
 - h. Low fuel level in the service tank.
 - i. Steering gear (Regulation Safety Seagoing Vessels Ch 3 Art 18a)
 - j. Fixed fire extinguishing installations with gas as an extinguishing medium.
 - k. Voltages and failure of fire detection, batteries etc.
 - l. Additional equipment such as oil water separator

In addition to Reg. 7 the following instruments shall be provided, indicating:

- a. The oil pressure of the propulsion engine;
- b. The cooling water temperature of the propulsion engine; and
- c. The control air pressure when pneumatic remote control is used.

16.4.2 Near the location where the propulsion engine can be operated locally, at least the following instruments shall be provided, indicating:

- a. The propeller speed or engine speed in the case of fixed pitch propellers, and the propeller speed and the pitch position in the case of controllable pitch propellers.
- b. The oil pressure of the propulsion engine;
- c. The cooling water temperature of the propulsion engine; and
- d. The oil pressure of the reversing gear or pitch control system.

5 Fire detection and fire alarm installations

17. A fixed fire detection and fire alarm installation shall be fitted in machinery spaces of category A.
18. The installation shall be so arranged that in the event of a fire an audible and visual alarm shall be given on the navigating bridge. In sleeping quarters, if any, this alarm shall also be audible.