



**GUIDE FOR**

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# **AUTOMATIC OR REMOTE CONTROL AND MONITORING SYSTEMS FOR VESSELS IN PORT**

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**American Bureau of Shipping  
Incorporated by Act of Legislature of  
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## **Updates**

### **November 2010 consolidation includes:**

- February 2003 version plus Notice No. 1

## Foreword

ABS has developed this Guide, *Automatic and Remote Control and Monitoring Systems for Vessels in Port*, with the aim of promoting the safety of the vessel and personnel by providing specific requirements which are intended to mitigate the potential of fire and flood outbreaks and malfunctioning of necessary auxiliary systems and their supplies while the vessel is anchored in port or moored alongside a wharf, without the normal watchkeeping personnel on board.

As compliance with this Guide is optional, it is envisioned that this Guide would be of interest to owners having vessels already complying with **ACCU** or **ABCU** notation requirements since the required criteria in this Guide embraces those in the aforementioned class notation and therefore, a minimum effort and cost would be required for the compliance with this Guide.

The scope of this Guide excludes vessel's maneuvering and loading/unloading operations.



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## 1 General

### 1.1

The requirements contained in this Guide are intended to promote the safety of the vessel and personnel while the vessel is anchored in port or moored alongside a wharf, without the normal watchkeeping personnel on board. Applicability of these requirements is optional and its compliance is at the request of the vessel's Owner.

It is a prerequisite that the vessel is also found to be classed to either **✕ ACCU** or **✕ ABCU** notation in accordance with Part 4, Chapter 9 of the *ABS Rules for Building and Classing Steel Vessels (Steel Vessel Rules)* or Part 4, Chapter 7 of the *ABS Rules for Building and Classing Steel Vessels Under 90 meters (295 feet) in Length*, respectively.

Unless otherwise noted in this Guide, relevant requirements contained in other Sections of the *Steel Vessel Rules* are also to be complied with.

### 1.3

Where requested by the Owner, automatic and remote control and monitoring system installations which are found to comply with the requirements specified in this Guide and which have been installed and tested under survey by the Surveyor, will be assigned and distinguished in the *Record* with the class notation **PORT**. See 1-1-3/25 of the *Steel Vessel Rules*.

## 3 Plans and Data

*(2011)* Relevant plans and data are to be submitted for approval. Plans should generally be submitted electronically to ABS. However, hard copies will also be accepted. The plans and specifications are to include the following.

### 3.1

A description of the relevant operational procedures to be followed while the vessel is anchored in port or moored alongside a wharf, in particular, normal locations where personnel for in-port operation duty might be present and details of the necessary actions to follow upon activation of the alarms required in this Guide.

### 3.3

A description of the alarm system associated with the scheme of this notation together with a list of alarms to be available to the designated personnel for in-port operation duty.

### 3.5

A list of equipment installed to meet the requirements of this Guide.

### 3.7

A one-line diagram/schematic diagram of the systems installed in accordance with this Guide. This is to include power supplies, circuit protection ratings and settings, cable sizes, rating of connected loads, detailed description and interactions, etc.

### 3.9

A test schedule for the equipment and systems installed to meet the requirements of this Guide.

## **5 Monitoring and Alarming Location**

Alarms and displays required in this Guide are to be fitted in the location where on-board personnel, normally employed for in-port operation duty, are present at an appropriate control and monitoring station so that they can be alerted to take further action at other stations which may be unmanned during in-port operations such as cargo control station, navigation bridge station, centralized fire-fighting station, centralized propulsion-machinery station, etc. In addition, the summary-alarms for fire, bilges, electrical generating plant (including emergency generator if used in port), and auxiliary boilers and oil purifiers serving essential systems as required in 4-9-4/19.1 of the *Steel Vessel Rules* are also to be included at the manned station required herein.

## **7 Cargo Handling Gear, Watertight Bulkhead Doors, Bow, Shell and Stern Doors, Exterior and Interior Ramps**

Cargo handling gear, watertight bulkhead doors, bow, shell and stern doors, exterior and interior ramps are to be monitored and alarmed for the following conditions:

### **7.1**

Low level condition of the associated feed tank or reservoir.

### **7.3**

Failure of each associated power motor or compressor.

### **7.5**

Failure of the associated power supplies.

## **9 Detection and Alarm and Fire Fighting System**

### **9.1 Fire Detection and Alarm System**

Wheelhouse and radio room (if arranged separately) are to be fitted with fire detectors and same are to be integrated with the fire detection and alarm system required by the Rules.

### **9.3 Fire Fighting System**

Unless the fire main is permanently pressurized, means to remotely control one of the required fire pumps and open/close its associated valve are to be provided. These controls are to be provided at a suitable location in the accommodation spaces, or at the entrance to the machinery space, when the former locations are left unattended in port.

## **11 Flood Prevention Systems**

### **11.1 Watertight Bulkhead Doors, Bow, Shell and Stern Doors, Exterior and Interior Ramps**

Closing/opening operation and status of watertight bulkhead doors, (normally closed at sea) bow, shell and stern doors, exterior and interior ramps are to be monitored and alarmed, as appropriate.

### **11.3 Bilges**

Cargo holds are to be fitted with a bilge water-level monitoring system and an excessive water influx or a rise condition therein is to be alarmed. Similarly, for vessels having a pump room required by the Rules to be fitted with a bilge water-level monitoring system, the alarming of such condition at the location specified in Section 5 of this Guide is also to be effected.

## **13 Mooring/Anchor Winches**

Where fitted, self-tensioned winches are to be monitored for excessive paying out or pulling in. To this end, the following is to be provided:

### **13.1**

Power supply failure.

### **13.2**

Paying out or pulling in of line outside of preset parameters.

## **15 Monitoring of Hazardous Cargo**

A summary-alarm is to be provided at the location specified in Section 5 of this Guide to alert of an abnormal condition related to the safe custody of hazardous cargo which could develop in the period other than cargo loading/offloading operation and if not detected on time, could compromise the safety of the vessel.

## **17 Main Generators**

The operational status of main generators and their connection to the main switchboard is to be displayed.

## **19 Emergency Generator**

Where the emergency generator is used in port, malfunctioning of the emergency generator set is to be alarmed. In addition, the operational status of the emergency generator and its connection to the emergency switchboard is to be displayed. Means are to be provided to readily change over to emergency operation.

Fuel oil tank low-level is to be alarmed at a level where there is still sufficient fuel oil capacity left for the emergency services for the period of time required by the Rules.

The emergency generator room is to be fitted with fire detectors and same are to be integrated with the fire detection and alarm system required by the Rules.

The emergency generator is to be safeguarded against overload by automatically shedding such other loads that the supply to the required emergency loads is always available

## **21 Tests**

Satisfactory operation of all systems outlined in this Guide is to be demonstrated in the presence of the attending Surveyor in accordance with an approved test schedule.

## **23 Surveys**

Satisfactory demonstration of all systems outlined in this Guide is to be made within three months either way of each annual anniversary date.