GUIDANCE NOTES

CHINA CLASSIFICATION SOCIETY

GUIDELINES FOR TYPE APPROVAL OF SHIP'S BALLAST WATER MANAGEMENT SYSTEMS

CCS RULE CHANGE NOTICE

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Chapter 1 GENERAL

1.3 Basis of the Guidelines

(9) Guidance for Administrations on the type approval process for ballast water management systems(BWM.2/Circ.43/Rev.~~1~~2);

1.5 Definitions

(7) **Major Components** mean those components that directly affect the ability of the system to meet the ballast water performance standard described in regulation D-2 of the BWM Convention. Examples of major components may include filters, ultraviolet modules, electrochlorination cells, dosing units, etc. (see also appendix 2, table 3).

(7bis) **Non-major component, also referred to as a "minor component",** means "those components that do not directly affect the ability of the system to meet the performance standard described in regulation D-2". Examples of minor components may include pumps, valves, common electrical components (e.g. fuses, circuit breakers), common sensors (e.g. temperature, pressure, salinity, see also appendix 2, table 3), and cabinetry.

APPENDIX 1 TYPE APPROVAL CERTIFICATE OF BALLAST WATER MANAGEMENT SYSTEM

APPENDIX 2 EXAMPLES OF MAJOR COMPONENTS AND MINOR COMPONENTS OF BALLAST WATER MANAGEMENT SYSTEM

To provide additional clarity on the types of components identified as "major components" and "minor components" within this Guidance, the following tables of examples have been developed for consideration. The examples are not intended to be exhaustive or representative of all technologies and all components that may be associated with a particular BWMS; however, examples of common components are provided.

Table1 Example major components

Chemical injection	Electrochlorination	Mechanical separation	Ultraviolet irradiation
• TRO or relevant sensor (if a part of the system)	• Electrolytic chamber/cell (if modification alters the technical specification, e.g. geometry anode, chlorine production) • TRO sensor	• Filter (if modification alters the technical specification, e.g. mesh, self-cleaning technology)	• UV chamber (if modification alters the technical specification of the UV chamber, e.g. geometry, inner surface reflective ability, UV lamp arrangement) • UV intensity or UV transmittance sensor (as applicable) • UV lamps • UV quartz sleeves

Table 2 Examples of changes or modifications affecting major components

Chemical injection	Electrochlorination	Mechanical separation	Ultraviolet irradiation
• Active	• Software*	• Filter mesh design	• Software*

substance formulation • Software* • Dosage	• Dosage	• Filter mesh size • Filter manufacturer or separation technology • Self-cleaning technology • Removal of filter Filter surface area	• Dosage

* Only software modifications that have the potential to directly impact biological efficacy are considered modifications to a major component.

Table 3 Example minor components, similar technical specifications provided

• Actuation switch	• Electrical cabinetry	• Mixing, circulation	• Signage
•Actuation/activation	• Filter backflush	or injection pump	• Switch, temperature
button	pump	• Piping materials	• Terminal blocks
• Alarm horn	• Filter index arm	• Pressure transmitter	• Touch panel
• Cabling	motor	• Program Logic •	• Transformer
• Circuit breakers	• Flow meter	Controller	• Valves
• Cleaning-in-place	• Fuses	• Rectifier	• Water level switch
unit	• Gas detector	• Remote operation	
• Conductivity	• Heat exchanger	panel	
sensor	(non-pasteurization)	• Salinity transmitter	
• Conductivity	• HMI screen	• Sensor, differential	
transmitter	• Junction box	pressure	
• Dilution blower		• Sensor, temperature	

Components in table 3 may not be considered minor if the Administration determines that they might affect the BWMS' ability to meet the D-2 standard.