

# Clarification of Safety Requirements for Selective Catalytic Reduction Systems

## Object of Amendment

Rules for the Survey and Construction of Steel Ships Part D  
Guidance for Marine Pollution Prevention Systems  
Guidance for Marine Engine Emission Verification

## Reason for Amendment

As a measure to comply with regulation 13 of MARPOL Annex VI which regulates the emission of nitrogen oxides (NO<sub>x</sub>) from ships, the use of selective catalytic reduction systems (SCR) is permitted. The Society has stipulated safety requirements for SCR systems in Chapter 21, Part D of the Rules for the Survey and Construction of Steel Ships.

Although the safety requirements include ones related to the installation of eyewash stations for the protection of crew members, said requirements did not clearly specify the locations where eyewash stations are to be installed. For this reason, relevant requirements are amended to explicitly specify the installation locations of eyewash stations associated with SCR systems.

In addition to the above, since revised SCR Guidelines were adopted at the 83rd session of the Marine Environment Protection Committee (MEPC83) as IMO resolution MEPC.399(83), references to the IMO resolution to be referenced for SCR systems in relevant requirements are updated accordingly.

## Outline of the Amendment

The outline of the amendments are as follows:

- (1) Clarifies requirements related to the installation locations of eyewash stations, in Chapter 21, Part D of the Rules for the Survey and Construction of Steel Ships.
- (2) Amends relevant requirements in the Guidelines for Marine Pollution Prevention Systems and the Guidance for Marine Engine Emission Verification to change the resolution number in references to SCR Guidelines to MEPC.399(83).

## Effective Date and application

- (1) Rules for the Survey and Construction of Steel Ships Part D  
Applicable to ships for which the date of contract for construction is on or after 1 January 2026.
- (2) Guidance for Marine Pollution Prevention Systems and Guidance for Marine Engine Emission Verification  
This amendment applies to the following SCR:
  - (a) Installed on ships the keels of which are laid or which are at a similar stage of construction on or after 1 November 2025.
  - (b) For ships other than those described in (a), SCR systems for which the date of contract for delivery is on or after 1 May 2026 or for which, in the absence of a contract for delivery, the date of actual delivery is on or after 1 May 2026.

ID:DD25-10

Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
<p style="text-align: center;"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part D MACHINERY INSTALLATIONS</b></p> <p style="text-align: center;"><b>Chapter 21 SELECTIVE CATALYTIC REDUCTION SYSTEMS AND ASSOCIATED EQUIPMENT</b></p> <p><b>21.1 General</b></p> <p><b>21.1.3 Drawings and Data to be Submitted</b>                      Drawings and data to be submitted are generally as follows:                      ((1) is omitted.)</p> <ul style="list-style-type: none"> <li>(2) Plans and documents for reference                             <ul style="list-style-type: none"> <li>(a) Operation manual for SCR systems</li> <li>(b) Operation manual for automatic control and safety systems</li> <li>(c) Documents related to allowable back pressure <u>(where deemed necessary by the Society)</u></li> <li>(d) Documents related to any studies and corresponding results explaining cases where bypass pipes are not fitted for SCR systems in accordance with <b>21.3.1-2(1)</b></li> <li>(e) Engineering analysis such as Failure Mode Effect Analysis (FMEA)</li> <li>(f) Other drawings considered necessary by the Society</li> </ul> </li> </ul>	<p style="text-align: center;"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part D MACHINERY INSTALLATIONS</b></p> <p style="text-align: center;"><b>Chapter 21 SELECTIVE CATALYTIC REDUCTION SYSTEMS AND ASSOCIATED EQUIPMENT</b></p> <p><b>21.1 General</b></p> <p><b>21.1.3 Drawings and Data to be Submitted</b>                      Drawings and data to be submitted are generally as follows:                      ((1) is omitted.)</p> <ul style="list-style-type: none"> <li>(2) Plans and documents for reference                             <ul style="list-style-type: none"> <li>(a) Operation manual for SCR systems</li> <li>(b) Operation manual for automatic control and safety systems</li> <li>(c) Documents related to allowable back pressure</li> <li>(d) Documents related to any studies and corresponding results explaining cases where bypass pipes are not fitted for SCR systems in accordance with <b>21.3.1-2(1)</b></li> <li>(e) Engineering analysis such as Failure Mode Effect Analysis (FMEA)</li> <li>(f) Other drawings considered necessary by the Society</li> </ul> </li> </ul>	<p>In principle, the documents related to back pressure are required only for existing vessels. For newly built vessels, such documents are generally not necessary to be submitted, since effect of back pressure caused by the installation of SCR are considered during the design phase.</p>

Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
<p><b>21.2 Design</b></p> <p><b>21.2.1 General Requirements</b></p> <p>2 In addition to the requirements in this Chapter, air pipes and sounding pipes are to satisfy the requirements in <b>13.6 (excluding 13.6.1-6)</b> and <b>13.8</b>. In such cases, the term “fuel oil” is to be read as “reductant agent”.</p> <p><b>21.7 Safety and Protective Equipment</b></p> <p><b>21.7.1 General</b></p> <p><u>1</u> For the protection of crew members, the ship is to have on board at least the following suitable protective equipment and installations. Locations and numbers of the equipment and installations are to be derived from the detailed installation arrangements. Locations where such equipment is stored or installed are to be clearly marked so as to be easily identifiable.</p> <p>(1) Personnel protective equipment</p> <p>(a) Large apron of chemical-resistant material</p> <p>(b) Special gloves with long sleeves</p> <p>(c) Suitable footwear</p> <p>(d) Suitable protective equipment consisting of coveralls and tight-fitting goggles or face shields or both</p> <p>(2) Self-contained breathing apparatus (capable of functioning for at least 30 minutes)</p> <p>(3) Stretcher</p>	<p><b>21.2 Design</b></p> <p><b>21.2.1 General Requirements</b></p> <p>2 In addition to the requirements in this Chapter, air pipes and sounding pipes are to satisfy the requirements in <b>13.6</b> and <b>13.8</b>. In such cases, the term “fuel oil” is to be read as “reductant agent”.</p> <p><b>21.7 Safety and Protective Equipment</b></p> <p><b>21.7.1 General</b></p> <p>For the protection of crew members, the ship is to have on board at least the following suitable protective equipment and installations. Locations and numbers of the equipment and installations are to be derived from the detailed installation arrangements. Locations where such equipment is stored or installed are to be clearly marked so as to be easily identifiable.</p> <p>(1) Personnel protective equipment</p> <p>(a) Large apron of chemical-resistant material</p> <p>(b) Special gloves with long sleeves</p> <p>(c) Suitable footwear</p> <p>(d) Suitable protective equipment consisting of coveralls and tight-fitting goggles or face shields or both</p> <p>(2) Self-contained breathing apparatus (capable of functioning for at least 30 minutes)</p> <p><u>(3) Eyewash</u></p> <p>(4) Stretcher</p>	<p>This provision is based on the potential hazards posed by reducing agents in the event of a fire. The requirements of 13.6.1-6 are excluded, since they are not intended for fire protection purposes.</p>

Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
<p><u>2 Eyewash is to be provided, and the locations and number of eyewash stations are to be derived from the detailed installation arrangements. At a minimum, the following stations are to be provided:</u></p> <p>(1) <u>In the vicinity of transfer or supply pump locations for reductant fluids. If there are multiple transfer or supply pump locations on the same deck, then one eyewash may be considered for acceptance provided that the station is easily accessible from all such pump locations on the same deck.</u></p> <p>(2) <u>An eyewash station is to be provided in the vicinity of a reductant bunkering station on deck. If the bunkering connections are located on both the port and starboard sides, then consideration is to be given to providing two eyewash stations, one for each side.</u></p>	<p>(Newly added)</p>	<p>Under the existing rules, the regulation regarding the installation location of eye wash stations is unclear; therefore, it is clarified with reference to Chapter 22, Part D of the Rules.</p>
<p>The effective date of the amendment is according to EFFECTIVE DATE AND APPLICATION (A)</p>		

Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR MARINE POLLUTION PREVENTION SYSTEMS</b></p> <p style="text-align: center;"><b>Part 2 SURVEYS</b></p> <p style="text-align: center;"><b>Chapter 2 REGISTRATION SURVEYS</b></p> <p><b>2.1 Registration Surveys during Construction</b></p> <p><b>2.1.4 Inspections of Construction and Equipment</b>  <b>10</b> The wording “standard deemed appropriate by the Society” in 2.1.4-5(3)(b), Part 2 of the Rules means Section 7 of <i>IMO</i> resolution <i>MEPC.399(83)</i>, as amended, or others deemed appropriate by the Administration taking into account this resolution.</p>	<p style="text-align: center;"><b>GUIDANCE FOR MARINE POLLUTION PREVENTION SYSTEMS</b></p> <p style="text-align: center;"><b>Part 2 SURVEYS</b></p> <p style="text-align: center;"><b>Chapter 2 REGISTRATION SURVEYS</b></p> <p><b>2.1 Registration Surveys during Construction</b></p> <p><b>2.1.4 Inspections of Construction and Equipment</b>  <b>10</b> The wording “standard deemed appropriate by the Society” in 2.1.4-5(3)(b), Part 2 of the Rules means Section 7 of <i>IMO</i> resolution <i>MEPC.291(71)</i>, as amended, or others deemed appropriate by the Administration taking into account this resolution.</p>	<p>MEPC.399(83)                  2025 GUIDELINES ON                  SELECTIVE                  CATALYTIC                  REDUCTION (SCR)                  SYSTEMS</p>

Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
<p><b>Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS</b></p> <p><b>Chapter 1 GENERAL</b></p> <p><b>1.1 General</b></p> <p><b>1.1.2 Terminology</b> (<i>Regulation 2, 13, 14 and 16 of Annex VI and 1.3, 4.1, 4.3.9 and 4.4.8 of NOx Technical Code</i>)</p> <p><b>1</b> In applying 1.1.2(1), Part 8 of the Rules, IMO resolution <i>MEPC.399(83)</i> as amended is to be applied in case of diesel engines fitted with selective catalytic reduction systems. In applying the IMO resolution and the “<i>NOx Technical Code</i>”, the IACS MPC series unified interpretations (MPC30(Rev.1), MPC58(Rev.1), MPC59(Rev.1), MPC74(Rev.1), MPC77(Rev.1), MPC106, MPC112(Rev.1), MPC115(Rev.1), MPC116(Rev.1) and MPC125(Rev.1)) related thereto are also to be applied.</p>	<p><b>Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS</b></p> <p><b>Chapter 1 GENERAL</b></p> <p><b>1.1 General</b></p> <p><b>1.1.2 Terminology</b> (<i>Regulation 2, 13, 14 and 16 of Annex VI and 1.3, 4.1, 4.3.9 and 4.4.8 of NOx Technical Code</i>)</p> <p><b>1</b> In applying 1.1.2(1), Part 8 of the Rules, IMO resolution <i>MEPC.291(71)</i> as amended is to be applied in case of diesel engines fitted with selective catalytic reduction systems. In applying the IMO resolution and the “<i>NOx Technical Code</i>”, the IACS MPC series unified interpretations (MPC30(Rev.1), MPC58(Rev.1), MPC59(Rev.1), MPC74(Rev.1), MPC77(Rev.1), MPC106, MPC112(Rev.1), MPC115(Rev.1), MPC116(Rev.1) and MPC125(Rev.1)) related thereto are also to be applied.</p>	

Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
<p style="text-align: center;"><b>Chapter 2 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS</b></p> <p><b>2.1 Nitrogen Oxides (NO<sub>x</sub>)</b> (<i>Regulation 13 of Annex VI</i>)</p> <p><b>2.1.2 Requirements for Installation</b>  <b>2</b> The wording “procedures specified otherwise by the Society” in 2.1.2-2(2), <b>Part 8 of the Rules</b> means those listed below.</p> <p>(1) Measurement procedures for emission verification on a test bed                      The procedures are to be in accordance with Chapter 5 of the <i>NO<sub>x</sub> Technical Code</i>. In addition to Chapter 5, procedures for diesel engines fitted with selective catalytic reduction systems are to be in accordance with <i>IMO</i> resolution <u>MEPC.399(83)</u> as amended. In applying the resolution and the <i>NO<sub>x</sub> Technical Code</i> referred to in the resolution, IACS MPC series unified interpretations related thereto are also to be applied.                      ((2) and (3) are omitted.)</p>	<p style="text-align: center;"><b>Chapter 2 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS</b></p> <p><b>2.1 Nitrogen Oxides (NO<sub>x</sub>)</b> (<i>Regulation 13 of Annex VI</i>)</p> <p><b>2.1.2 Requirements for Installation</b>  <b>2</b> The wording “procedures specified otherwise by the Society” in 2.1.2-2(2), <b>Part 8 of the Rules</b> means those listed below.</p> <p>(1) Measurement procedures for emission verification on a test bed                      The procedures are to be in accordance with Chapter 5 of the <i>NO<sub>x</sub> Technical Code</i>. In addition to Chapter 5, procedures for diesel engines fitted with selective catalytic reduction systems are to be in accordance with <i>IMO</i> resolution <u>MEPC.291(71)</u> as amended. In applying the resolution and the <i>NO<sub>x</sub> Technical Code</i> referred to in the resolution, IACS MPC series unified interpretations related thereto are also to be applied.                      ((2) and (3) are omitted.)</p>	

Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR MARINE ENGINE EMISSION VERIFICATION</b></p> <p style="text-align: center;"><b>Chapter 1 GENERAL RULES</b></p> <p><b>1.2 Definition</b></p> <p><b>1.2.1 Terms</b></p> <p><b>1</b> In applying <b>1.2.1(3) of the Rules</b>, the procedures for engines fitted with selective catalytic reduction systems are also to be in accordance with <i>IMO</i> resolution <i>MEPC.399(83)</i>, as amended. In applying the resolution and the <i>NOx Technical Code</i> referred to in the resolution, IACS MPC series unified interpretations (MPC30(Rev.1), MPC58(Rev.1), MPC59(Rev.1), MPC74(Rev.1), MPC77(Rev.1), MPC106, MPC112(Rev.1), MPC115(Rev.1), MPC116(Rev.1) and MPC125(Rev.1)) related thereto are also to be applied.</p> <p><b>Chapter 2 EMISSION VERIFICATION, ETC.</b></p> <p><b>2.1 Application for Emission Verification, etc.</b></p> <p><b>2.1.1 Application for Emission Verification, etc.</b></p> <p><b>1</b> For engines fitted with selective catalytic reduction systems, the “other documents considered necessary by the Society” specified in <b>2.1.1-4(8) of the Rules</b> include, but are not limited to, such documents as the following:                      ((1) to (3) are omitted.)</p>	<p style="text-align: center;"><b>GUIDANCE FOR MARINE ENGINE EMISSION VERIFICATION</b></p> <p style="text-align: center;"><b>Chapter 1 GENERAL RULES</b></p> <p><b>1.2 Definition</b></p> <p><b>1.2.1 Terms</b></p> <p><b>1</b> In applying <b>1.2.1(3) of the Rules</b>, the procedures for engines fitted with selective catalytic reduction systems are also to be in accordance with <i>IMO</i> resolution <i>MEPC.291(71)</i>, as amended. In applying the resolution and the <i>NOx Technical Code</i> referred to in the resolution, IACS MPC series unified interpretations (MPC30(Rev.1), MPC58(Rev.1), MPC59(Rev.1), MPC74(Rev.1), MPC77(Rev.1), MPC106, MPC112(Rev.1), MPC115(Rev.1), MPC116(Rev.1) and MPC125(Rev.1)) related thereto are also to be applied.</p> <p><b>Chapter 2 EMISSION VERIFICATION, ETC.</b></p> <p><b>2.1 Application for Emission Verification, etc.</b></p> <p><b>2.1.1 Application for Emission Verification, etc.</b></p> <p><b>1</b> For engines fitted with selective catalytic reduction systems, the “other documents considered necessary by the Society” specified in <b>2.1.1-4(8) of the Rules</b> include, but are not limited to, such documents as the following:                      ((1) to (3) are omitted.)</p>	



Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
<p>(4) Test plans of the onboard confirmation tests specified in 7, Annex of <i>IMO</i> resolution <i>MEPC.399(83)</i>, as amended</p> <p><b>2.2 Emission Verification and Approval of Technical File of the Engine</b></p> <p><b>2.2.1 Emission Verification and Approval of Technical File of the Engine</b></p> <p><b>1</b> In applying 2.2.1(2)(a)i) of the Rules, refers to <i>IMO</i> resolution <i>MEPC.399(83)</i>, as amended, or others deemed appropriate by the Administration taking into account this resolution.</p> <p><b>2</b> The “separately specified by the Society” referred to in 2.2.1(2)(a)iv)1) of the Rules for engines fitted with selective catalytic reduction systems means the following (1) and (2):</p> <p>(1) At the emission verification by means of measurement procedures for emission verification on a test bed, engines fitted with a NOx-reducing device are also subject to Section 5 of the Annex of <i>IMO</i> resolution <i>MEPC.399(83)</i>, as amended.</p> <p>(2) At the emission verification by means of measurement procedures for emission verification on a test bed, engines tested in a condition other than that specified in (1) above are also to be subject to Section 6 of the Annex of <i>IMO</i> resolution <i>MEPC.399(83)</i>, as amended. For such engines, it is necessary to ensure that the additional onboard confirmation tests specified in Section 7 of the Annex of <i>IMO</i> resolution <i>MEPC.399(83)</i>, as amended, are performed.</p>	<p>(4) Test plans of the on_board confirmation tests specified in 7, Annex of <i>IMO</i> resolution <i>MEPC.291(71)</i>, as amended</p> <p><b>2.2 Emission Verification and Approval of Technical File of the Engine</b></p> <p><b>2.2.1 Emission Verification and Approval of Technical File of the Engine</b></p> <p><b>1</b> In applying 2.2.1(2)(a)i) of the Rules, refers to <i>IMO</i> resolution <i>MEPC.291(71)</i>, as amended, or others deemed appropriate by the Administration taking into account this resolution.</p> <p><b>2</b> The “separately specified by the Society” referred to in 2.2.1(2)(a)iv)1) of the Rules for engines fitted with selective catalytic reduction systems means the following (1) and (2):</p> <p>(1) At the emission verification by means of measurement procedures for emission verification on a test bed, engines fitted with a NOx-reducing device are also subject to Section 5 of the Annex of <i>IMO</i> resolution <i>MEPC.291(71)</i>, as amended.</p> <p>(2) At the emission verification by means of measurement procedures for emission verification on a test bed, engines tested in a condition other than that specified in (1) above are also to be subject to Section 6 of the Annex of <i>IMO</i> resolution <i>MEPC.291(71)</i>, as amended. For such engines, it is necessary to ensure that the additional on_board confirmation tests specified in Section 7 of the Annex of <i>IMO</i> resolution <i>MEPC.291(71)</i>, as amended, are performed.</p>	

Amended-Original Requirements Comparison Table (Clarification of Safety Requirements for Selective Catalytic Reduction Systems)

Amended	Original	Remarks
The effective date of the amendment is according to EFFECTIVE DATE AND APPLICATION (B)		
<p style="text-align: center;">EFFECTIVE DATE AND APPLICATION (A)</p> <ol style="list-style-type: none"> <li>1. The effective date of the amendments is 1 January 2026.</li> <li>2. Notwithstanding the amendments, the current requirements apply to ships other than ships for which the application for Classification Survey during Construction is submitted to the Society on or after the effective date.</li> </ol> <p style="text-align: center;">EFFECTIVE DATE AND APPLICATION (B)</p> <ol style="list-style-type: none"> <li>1. The effective date of the amendments is 1 November 2025.</li> <li>2. Notwithstanding the amendments, the current requirements apply to ships the keels of which were laid or which were at <i>a similar stage of construction</i> before the effective date. (Note) The term “<i>a similar stage of construction</i>” means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 <i>tonnes</i> or 1%* of the estimated mass of all structural material, whichever is the less. * For high speed craft, “1%” is to be read as “3%”.</li> <li>3. Notwithstanding the provisions of 2. above, the amended requirements apply to ships for which the contractual delivery date of SCR systems to the ship is on or after 1 May 2026, or, in the absence of a contractual delivery date, the actual delivery of the SCR system to the ship is on or after 1 May 2026.</li> </ol>		