



IGC CODE



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Fall 2023

Unified Interpretations

Numerous unified interpretations of the IGC Code have been adopted to provide guidance about safe arrangements for liquefied gas carriers. The interpretations address various subjects, including:

- Tee welds in type A or type B independent tanks
- Cargo sampling and cargo filters
- Cargo piping insulation
- Type testing requirements for valves
- Size of pressure relief devices
- Emergency fire pumps and fire pumps used as spray pumps
- Level indicators for cargo tanks
- Oxygen deficiency monitoring equipment in a nitrogen generator room Please note that unified interpretations are not intended to change or replace an IGC Code requirement but only to clarify the regulation.

Effective Date: 8 December 2020

Source: MSC.1/Circular 1624



Chapter 6/Regulation 6.5.3: Material Welding and Nondestructive Testing

A minor amendment was made to the requirements for welding procedure tests for cargo tanks and process pressure vessels to broaden the scope of requirements for cross-weld tensile strength.

Previously worded to apply to “aluminum alloys,” the requirement will now be more broadly applicable to “materials such as aluminum alloys.” The amendment is intended to clarify the broader application of tensile tests to metallic materials rather than just aluminum.

Effective Date: 1 January 2024

Source: MSC.476(102)



Chapter 6: Materials of Construction – High Manganese Austenitic Steel

The IMO adopted an amendment to the IGC Code to confirm the acceptability of high manganese austenitic steel and to provide testing requirements for high manganese austenitic steel used in cryogenic service.

As a mandatory instrument of the IMO to regulate the design, construction, and equipment of ships carrying liquefied gases in bulk, vessels designed using high manganese austenitic steel will be subject to the updated testing requirements.

Effective Date: 1 January 2026

Source: MSC.523(106)



Chapter 11: Fixed Dry Chemical Powder Fire-Extinguishing Systems

Amendments were made to the guidelines for the approval of fixed dry chemical powder fire-extinguishing systems installed on ships carrying liquefied gases in bulk.

The amendments cover technical requirements for the system, including definitions of relevant terms, the capability of manual release, the operation of hand hose lines and monitors and specific criteria such as testing for the dry chemical powder and the system.

The guidelines support the installation of fire protection for on-deck cargo areas of these ships in accordance with international regulations.

Effective Date: 5 December 2022

Source: MSC.1/Circular 1315/Revision 1



Spring 2023

Chapter 2: Watertight Openings

An amendment to the IGC Code provides new considerations for the placement of watertight openings regarding the final damaged water line, which is critical to determine satisfactory equilibrium after flooding. This amendment specifies the additional types of openings fitted with watertight closures that may be excluded from the requirement of being located above the final water line after flooding:

- Quick acting or single action type hinged watertight access doors with open/closed indication locally and at the navigation bridge and that are normally closed at sea
- Hinged watertight doors permanently closed at sea

This change was also made to correlate with related amendments made to the SOLAS Convention and several other IMO standards.

Effective Date: 1 January 2024

Sources: MSC.492(104)



Chapter 5: Unified Interpretations of the IGC Code

A new unified interpretation of the IGC Code was adopted to provide guidance on safe arrangements for gas fuel piping systems and gas valve unit rooms on gas carriers that use cargo as fuel.

The interpretation addresses the details of these arrangements, including how the gas valve unit rooms should be:

- Gastight toward other enclosed spaces
- Equipped with mechanical exhaust ventilation providing at least 30 air changes per hour and arranged to maintain a pressure less than the atmospheric pressure
- Able to withstand the maximum built-up pressure arising in the room in case of a gas pipe rupture, as documented by suitable calculations considering the ventilation arrangements



The clarified definition of ducts ensures that outer pipe or duct of a gas fuel piping system should, at a minimum, meet the requirements for a design pressure of the inner pipe (paragraph 5.4.4) and the requirement for pressure testing (paragraph 5.13.2.4).

This interpretation is intended to encourage safe designs by incorporating measures that contain and control leaks from piping failures in fuel gas systems. Unified interpretations are not intended to change or replace an IGC Code regulation but only to clarify the regulation.

Effective Date: 15 June 2022

Sources: MSC.1/Circular.1651

Chapter 6: Acceptance of Alternative Metallic Materials for Cryogenic Service

Amendments were made to the "Guidelines for the Acceptance of Alternative Metallic Materials for Cryogenic Service in Ships Carrying Liquefied Gases in Bulk and Ships Using Gases or other Low-Flashpoint Fuels" to introduce updated guidance for material and weld testing and several changes related to confirming the compatibility of metallic materials with carriage of ammonia.

This change is necessary to acknowledge the future potential use of ammonia as a low-carbon alternative fuel and to acknowledge the unique challenges in handling ammonia. These guidelines now include testing for resistance to stress corrosion cracking after extended submersion in ammonia fuel.

Effective Date: 15 June 2022

Sources: MSC.1/Circular.1648





Chapter 6: Application of High Manganese Austenitic Steel for Cryogenic Service

The Revised Guidelines on the Application of High Manganese Austenitic Steel for Cryogenic Service were amended to include testing to validate the use of such materials in the carriage of ammonia.

This change is necessary to acknowledge the future potential use of ammonia as a low-carbon alternative fuel and to acknowledge the unique challenges in handling ammonia. These guidelines now include testing for resistance to stress corrosion cracking after extended submersion in ammonia fuel.

Effective Date: 15 June 2022

Sources: MSC.1/Circular.1599/Revision.2

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