



# NSCV PART C3 - CONSTRUCTION

## WINDOW DESIGN AND INSTALLATION ONLY for vessels up to 24 metres

This document describes a solution that the National Regulator considers will achieve the outcome required by the applicable standard, within the limits of the service category of the vessel on which the solution is implemented. It is not the only solution that may achieve the required outcome.

### Application

Window design and installation available for vessels designed to Lloyds Service Category G2 for restricted offshore operations up to 20nm.

The National Regulator considers that this GES will achieve the outcomes of the applicable standard until NSCV Part C2 Watertight and Weather tight comes into effect.

### Relevant references

Section 38(3) of the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012*.

*Marine Order 503 (Certificates of Survey- national law) 2013* applies the following USL Clauses:

- 5C, clauses C.42 to C.46, C.54.2, C.55 to C.57, C.61.1, C.61.3a, C.61.4, C.61.5, C.69.1 to C.69.6 and C.73;
- 5D, clauses D.18 to D.36

### Equivalent solution

The National Regulator considers that to achieve the required outcomes of the applicable standards for WINDOW DESIGN AND INSTALLATION ONLY, vessels up to 24m measured length intended to operate within the Lloyds G2 service envelope and are designed to Lloyds SSC Category G2 may use International Standard ISO 12216 2002-06 (E)- Small craft - Windows, port lights, hatches, deadlights and doors - Strength and watertightness requirements to determine design and installation.

For the purpose of this GES the following definitions apply:

- **'Windows'**- are rectangular openings generally having a radius at each corner relative to the window size in accordance with the standard, and round or oval openings with an area of or exceeding 0.16m<sup>2</sup>.
- **'Side scuttles'**- are round or oval opening with an area not exceeding 0.16m<sup>2</sup>. Round or oval opening with an area exceeding 0.16m<sup>2</sup> should be treated as windows.
- **'Port lights'** are considered to be side scuttles and portholes.

The National Regulator considers that the required outcome will not be met unless all of the following are satisfied:

- Minimum window thickness is not less than 6mm.
- Installation is strictly in accordance with the requirements in ISO 12216.
- Design pressures used within ISO 12216 calculations are the greater of those calculated: (a) within ISO 12216, and (b) the hull construction standard to which the vessel is built.
- A port light or window to a space below the weather deck, or in a step recess, raised deck structure, deckhouse or superstructure protecting openings leading below the weather deck is of efficient construction which provides weather tight integrity (and be of strength compatible with size) for the intended area of operation of the vessel and not less than that of the surrounding structure.
- No port light is fitted in such a position that its sill is below a line drawn parallel to the freeboard deck at side and having its lowest point 2.5 per cent of the breadth B above the maximum load waterline, or 500 mm, whichever is the greater distance.
- Windows are not fitted below the freeboard deck, in the first tier bulkheads or sides of enclosed superstructures, or in the first tier deckhouses considered buoyant in the stability calculations of NSCV Part C 6A- Intact Stability Requirements.
- Simply supported plates, or those of opening type, are not used in Area 1 of ISO 12216 for those vessels with flood risk category II or greater as designated within NSCV Part C 6B- Buoyancy and Stability.
- Construction and testing of port lights, windows and their frames meets the appropriate Marine Standards defined in equivalent National or International Standards or Classification Rules.

**Note:** This solution, considered by the National Regulator as one possible solution to satisfy the outcomes of the applicable standards, was canvassed nationally in August 2013, agreed by technical staff from maritime safety agencies, and subsequently agreed to by the Maritime Agency Forum (MAF).