

Ship Design and Equipment - Urgent Matters

Performance Standards for Protective Coatings - Industry Comments

Submitted by the International Chamber of Shipping (ICS), BIMCO,
Oil Companies International Marine Forum (OCIMF), INTERCARGO and
INTERTANKO. (the Industry)

SUMMARY

Executive Summary: This document comments on the outcome of DE 49 in relation to its work on the development of Performance Standards for Protective Coatings, and provides suggested text for the standard and SOLAS resolution, as requested by DE 49.

Action to be taken: See paragraph 6.

Related documents: DE 49/**, paragraphs ** and ANNEX *.

Introduction

1. DE 49 agreed the draft "Performance Standards for Protective Coating for Dedicated Seawater Ballast Tanks on all New Ships and Double-side Skin Spaces of Bulk Carriers" in general, keeping square brackets in for reconsideration of the MSC. DE 49 requested further input to MSC 81, in particular on square brackets and concrete proposals for text.
2. During the DE 49 plenary discussion of the Performance Standards for Protective Coating Working Group report the Industry expressed full support for the standard that had been developed, but cautioned that there had been much pressure to lower requirements, and if the preliminary agreed standard was allowed to be reduced, then the already agreed 15 year coating target life would not be achievable. The Industry statement at DE 49 also expressed concern at the heavy emphasis placed on coating maintenance during the target life, and that the text developed could be interpreted so as to require the new-build coating standard to be maintained at all times during the ships life with subsequent recoating required to the same standard and that this would be unachievable in practice. The Industry preferences for bracketed text and alternative text proposals for sections raising concern follow, together with Industry reasoning for such amendment. Proposed text amendment to the current draft is highlighted by ~~strikethrough~~ for deletions and underline for additions, *comment is provided in italics*.

3. Draft Performance Standard

“1 Purpose

This standard provides technical requirements for protective coatings in dedicated seawater ballast tanks constructed of steel of all types of ships and double-side skin spaces arranged in bulk carriers of 150m in length and upward constructed on or after [.....] for the purpose of regulation SOLAS regulation II-1/3-2 adopted by resolution MSC ... (82). The standard defined is intended for application at the new-build stage and therefore need not necessarily be followed at the re-coating stage.“

Comment - The inclusion of the additional text would clarify that the standard is only mandated for coatings applied at new building. It is considered that this standard is not practicable for coating repairs on ships in service, and can not be achieved during re-coating for many technical reasons.

2 Definitions

expressed

“h. **maintenance**: is {to include inspection of the coating, and repair of mechanically caused damage or that caused by circumstances outside the operating environment for which the coating was designed and specified. This should not include re-coating of non-mechanically induced damage in the intended operating environment}
~~{alternative: cleaning and inspection of the coating and repairing if required}~~”

Comment –in this context maintenance applies to the coatings ability to achieve the target life, if routine re-coating was determined maintenance, then there would be an implied permissible derogation to the standard. This definition is very relevant to the use of “maintenance” in the General Principles section 3.1.

3 GENERAL PRINCIPLES

“3.3 gradual processes. Notwithstanding the above design assumption, any coating faults discovered in service should be repaired in the normal course regardless of their cause.”

Comment – As this is to be a mandatory standard, then the original text could be taken as requiring coating repair immediately any coating deterioration is discovered, with the potential PSC problems that this interpretation may give rise to.

“3.2.2 proper periodic coating inspection and maintenance, and repairs of any ~~[mechanical]~~ mechanical damages found during the ship coating target life is necessary and is to be carried out by the Company.

Comment – This statement is considered to refer to the ability of the coating to achieve the desired 15 year life, and this should be defined rather than referring to the whole ships life. It is also felt important to re-instate the word “mechanical” to

clarify the intent, it is believed referring to “all” damages would raise a loophole that would permit the target life to be achieved by constant repairs. The “Company” is the usual term in SOLAS for the responsible vessel operator.

“3.5.3 Maintenance, at significant repair [~~full and partial recoating applies to repairs of tanks in FAIR & POOR or worse condition~~].

The Company shall ensure that the ~~The Coating Technical File shall records~~ at least the following items ~~by shipowner~~ at maintenance and significant repair or recoating stage when work is carried out by a painting contractor or shipyard:

Comment – The adjustment to the sub-heading text, coupled with the proposed amendment to the qualifying paragraph, will clarify the intent. It would be impossible to fulfill the identified requirements that follow during routine small touch up carried out by ship crews, but the effect would be to ensure recording of significant work. It should also be remembered that there are Class requirements for coatings also applicable.

“3.5.3.3 ~~procedures~~ recommendations for inspection and repair of coating system

Comment – it is to be recognised that this standard is mandatory, and as such this particular section should remain recommendatory in nature.

COATING STANDARD

“4.1..... the frequency and maintenance performed with shipboard means and repairs to any [~~mechanical~~] mechanical damages to the coating.”

Comment – it is strongly recommended that the word “mechanical” is retained, the target useful life should not be dependant upon full re-coating of any coating degradation caused by failure of the coating as a norm.

“4.3.1 The minimum requirements for protective coating systems to be applied at ship construction for dedicated seawater ballast tanks of all ship types and double-side skin spaces arranged in bulk carriers of 150m in length and upward meeting the performance standard specified in paragraph 4.1 are listed in table 1.

Comment – the word minimum has been re-instated as this standard is mandatory, and without this qualification it would be implied that a higher standard would not be acceptable. It is again stressed that this standard is to be applied at the new-build stage and this is defined by the additional inclusion.

Table 1

1.e NDFT 335 μm with 90/10 rule

Comment – Industry has constantly stressed the need for a DFT of 300 μm MINIMUM. This is firmly believed to be the only means of achieving a coating useful target life of 15 years. We believe that the NDFT 300 μm with 90/10 is NOT an option, this was inserted with only support of shipbuilding interests and will only reduce the standard from that required if accepted.

3.e Dust – Dust quantity rating “2” for dust size class “0”, “1” or “2”.
Dust quantity rating “1” for dust size class “3”, “4” or “5”

Comment – This option is understood to be readily achievable, and the one supported by the majority of the DE Working Group. Industry believe that to accept a lower requirement would negatively affect the performance of the coating to the extent that the 15 year target life could not be obtained.

4. Draft Amendments to SOLAS regulation 3-2

“1.1 Excepted as provided in paragraph 2, all dedicated seawater ballast tanks arranged in ships [of not less than [xxx] gross tonnage] ~~constructed on or after [date to be determined by the MSC] and [dedicated seawater ballast tanks and]~~ double-side skin spaces arranged in bulk carriers of 150 m in length and upwards constructed on or after [the date to be determined by the MSC] shall ~~[have an efficient corrosion prevention system, such as hard protective coatings or equivalent. The protective coating shall comply with]~~ [be coated during construction in accordance with] the [Performance standard for protective coatings for dedicated seawater ballast tanks and double-side skin spaces of bulk carriers, adopted by the Maritime Safety Committee by resolution [MSC.(...)], as may be amended byprocedures applicable to the Annex other than chapter 1. Re-coating of these spaces need not be in accordance with this standard.”

Comment – it is considered that the wording referring to “an efficient corrosion protection system..” would provide a “loophole” for not applying the coating standard, and this would be totally against the intent of the regulation, the possibility of an equivalent coating protection is already provided for within the standard. Text has been included to clarify that the application of this coating standard is only mandatory during construction, this is believed necessary to ensure a correct and unambiguous requirement for Port State Control purposes.

5. Action requested by the Committee

The Committee is invited to consider the information provided during its finalization of the draft performance standard for coatings, and to take action as appropriate.