

Discussions on optimizing coating performance inside and outside ship hulls

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The definition of success in coating usage is meeting the expectations. As such it is vital that the end user have a clear idea of what these expectations are. The providers cannot be the ones that decide on the expectations. Coating data sheets offers a range of choices in terms of surface preparation and application conditions, all of which may not generate a performance that meets the expectations. The painting manufacturers are under pressure to make things easy for the constructing yard, and there is nothing wrong with that as long as the final product also meets the needs of the ship. If the intent of the application is make something look good only during a visit of a dignitary, and the ship is to be retired soon after a minimum approach is highly appropriate. However, if it is a new ship with a 25-year service life expectancy a more robust approach is the more cost effective approach. This presentation will focus on the common modes of failure and what can be done at onset to offset those risks to increase the chance of meeting the expectations of a 25-year performance of the coatings applied. Much of the discussions will touch on ballast tank coatings as the performance of those have an influence on the ships' service life.

Biofouling Risk and Biofouling Management

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Biofouling in some form or manner is ubiquitous to all marine environments. Its manifestation is dependent on the biogeographical setting, season, aquatic setting, structure, substrate and operational characteristics. Understanding the type of fouling that may occur is essential to estimating risk and implementing a biofouling management solution. It enables decisions to be made at the design phase of projects. For example, is it possible to incorporate a fouling allowance into the design so that no fouling control methods are required? If there is a requirement for fouling control; what is the design life, what are the operational requirements, what are the environmental conditions, what regulations apply, and what are the economic limitations? Examples of the how an understanding of biofouling risk may be used to enhance biofouling management will be given.