



1st National Marine Industries Forum “Issues and Challenges – Moving Forward”

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The importance of Certified Coating Inspector for IMO PSPC Rules

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Agenda

- Background
- IMO PSPC Rules – Timing
- IMO PSPC Rules – Requirements
- Challenges
- Suggestions
- Conclusion

The importance of Certified Coating Inspector for IMO PSPC Rules - Facts

Fact 1:

PT. Batamec is entering a period of aggressive growth and are looking for a suitably qualified and experienced candidate to fill the vacancy of Coating Inspector.

(Source: jakjob.com)

Fact 2:

STX Shipbuilding: All of the 18 staff members, who applied for the coating inspector qualification test of the world authority, passed the test.

(Source: stx.co.kr)

The importance of Certified Coating Inspector for IMO PSPC Rules - Facts

Fact 3:

Lloyd's Register Selects NACE International To Expand PSPC Training for Shipyards In China.

"The feedback from our gap analysis indicated that the yards in China felt there was a critical lack of coating inspectors with the qualifications required by the PSPC, and an urgent requirement to deliver the *courses in Mandarin*," Brown says.

"Their demand for training created the impetus for this initiative."

(Source: www.abnnewswire.net)

The importance of Certified Coating Inspector for IMO PSPC Rules - Facts

Facts show that marine industry players from around the world are taking a step forward by hiring and training of their resources to be the Certified Coating Inspector.

Timing for IMO PSPC Rules for dedicated Seawater Ballast Tank

Date	Event
1st July 2006	SOLAS XII/6.3 comes into force
Dec 2006	Draft resolution adopted
1st July 2008	Applied to all ships of not less than 500GT.
1st Jan 2009	Will apply to all Keels laid after this date
1st July 2012	Will apply to all vessels delivered after this date

Performance Standard for Protective Coatings in Dedicated Seawater Ballast Tanks

Target useful life of 15 years

Conforming to the IMO Rules for Coating Inspection.

Coating Advisor to be NACE II, FROSIO red or equivalent certified

Certified Coating Inspector - Nace Level 2, Frosio Red or equivalent

- Focuses on advanced inspection techniques and specialized application for both steel and non-steel substrates.
- The course includes in-depth coverage of surface preparation, coating types, inspection criteria, and failure modes for various coatings including specialized coatings and linings.

IMO PSPC Rules – What are the rules?

1. Technical coating file:

Shall include, but not limited to:

- Statement of compliance or type approval (coating)
- TDS
- Shipyard's verified inspection
 - completion date / inspection results / remarks / signed
- Daily log
- Maintenance & Significant Repair during service life
 - TDS
 - Work records
 - Procedure for inspection and repair

The Coating Technical File shall be kept on board for the remainder of the life of the ship

IMO PSPC Rules – What are the rules?

2. Surface Preparation

- When no shop primer is used or it has deteriorated
 - Sa 2½ with profiles between 30–75 µm
- Zinc containing silicate shop primer shall be compatible with the main coating system
 - Coating manufacturer to confirm
 - Shop primer must be pre-qualified with an epoxy based system and can be used with any other epoxy based system that is approved
- Soluble salts
 - 50 mg/m² of Sodium Chloride (NaCl)
- Acceptable Dust Level
 - ISO 8502-3, tape test, max dust level : 1

IMO PSPC Rules – What are the rules?

3. Coating Advisor to be NACE II, FROSIO red or equivalent certified. Inspection shall include but not limited to:
- surface preparation at all stages
 - DFT at all stages
 - Cure of all coatings including the shop primer
 - Block Assembly & Erection
 - Visual prior to and after surface preparation
 - All standard measurable (detailed in this standard)

IMO PSPC Rules – What are the rules?

4. Coating Type

- Epoxy Based Systems (including Epoxy Mastics)
- Other coating systems with performance according to the test procedure (i.e. new technology)
- A multi coat system with contrasting colours
- Final coat of light colour to ease inspection

5. Pre-Qualification

- B1 approval
- 5 years in-service history where class has notation after 5 years inspection of 'GOOD'

IMO PSPC Rules – What are the rules?

- To implement the rules, there is a need of dedicated certified personnel especially in preparing Coating Technical File, which includes surface preparation, inspection, application etc.
- This process involves documentations at all stages, which need to be signed by certified personnel. For instance, daily log, non-conforming report and rectification work. All signed documents will be kept in Coating Technical File on board the vessel.

Challenges

- **Time** to attend the course is always a challenge especially all major yards are busy in completing their current new building projects in meeting delivery date and schedule.
- **Cost** spent on *training* and *remuneration package* will contribute an impact to all parties (i.e owner, yards, paint suppliers, surveyor etc)
- **Enforcement** has yet to reach the full force in Malaysia looking at technical and business commercial point of view. This has to be handled carefully.
- Still lack of **training availability** in Malaysia market.
- How are we going to move forward and face all these challenges?

Suggestions

- Besides paint suppliers, the following organizations in marine industry should consider to have their staff to be a certified coating inspector:
- ***Shipyard (Painting representative)***
- Blasting and painting are major activities at shipyards. By having staff with NACE Level 2, FROSIO Red or equivalent certification, they can fulfill IMO rules and requirements besides upgrading the yard image and creating more business opportunities.
- *(Some of the yards in Malaysia already taken such initiative and send their staff for NACE, Frosio or equivalent courses)*

Suggestions

- ***Blasting and painting contractor (Site supervisor)***
- Majority of the shipyards in Malaysia will typically award the blasting and painting jobs to in house contractors. These contractors are obliged to adhere to the new IMO PSPC rules and regulations.
- Contractors who have NACE Level II, FROSIO red or equivalent certified in their organization will have the competitive edge to secure the job.
- *(There are applicators in Malaysia who already have NACE certified staff and plan to send more staff to NACE course. These applicators provide a package to shipyard for IMO PSPC involvement project to handle documentation and inspection for yard).*

Suggestions

- ***Ship owner (Owner representative or hull engineer)***
- Some ship owners have their own hull engineers to take care of ship's hull where corrosion protection is one of the key responsibilities. Essentially, they cannot solely rely on class, shipyard and paint supplier to take care of surface preparation and application process during dry docking and new building since their requirement change over time.
- *(There is an owner in Malaysia who sent their staff to attend the course together with paint manufacturer coating inspector)*

Suggestions

- ***Strategic campaign*** shall be kicked off to instill the importance of certified coating inspector in the marine industry.
- This in return will improve and uplift the marine industry standard and efficiency in long term.
- The eventual industries that will benefit out of this are namely shipyards, oil and gas contractors, ship owners, blasting and painting contractors and paint manufacturers.

Conclusion

- Certified Coating Inspector is a requirement in current new building market, specifically for seawater ballast tank, which is in line with the IMO PSPC rules and regulations. There is still lack of certified Coating Inspectors in Malaysian's market.
- There are some shipyards, applicators and ship owners, who already sent their employees to attend the Coating Inspector courses. This is however still minimum.

Conclusion

- *(From NACE website: Registration for CORROSION 2010 has already set records with advance registration passing that of registration for CORROSION 2008 in New Orleans and is expected to bring the highest attendance in the history of the conference)*
- In new building perspective where coating is involved, the process of surface preparation and application especially for ballast tank is the responsibility of all parties where shipyard, applicator, paint manufacturer and owner have to work together. This is an on- going process since the beginning of keel laying until shipyard delivers the vessel to the owner.

Thank you