



Annual report of ASEF/TWG/SWG1 on Update of "IMO PSPC"

2016. 11. 08
ASEF TWG/SWG1 CHAIRMAN
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1. Introduction of ASEF

ASEF

ASEF(Active Shipbuilding Experts' Federation)

■ Purpose

- Through technical communication and cooperation among shipbuilding industries
 1. To contribute to sound **development of international maritime transportation.**
 2. To further development of the world **maritime safety, marine environment protection and maritime security.**

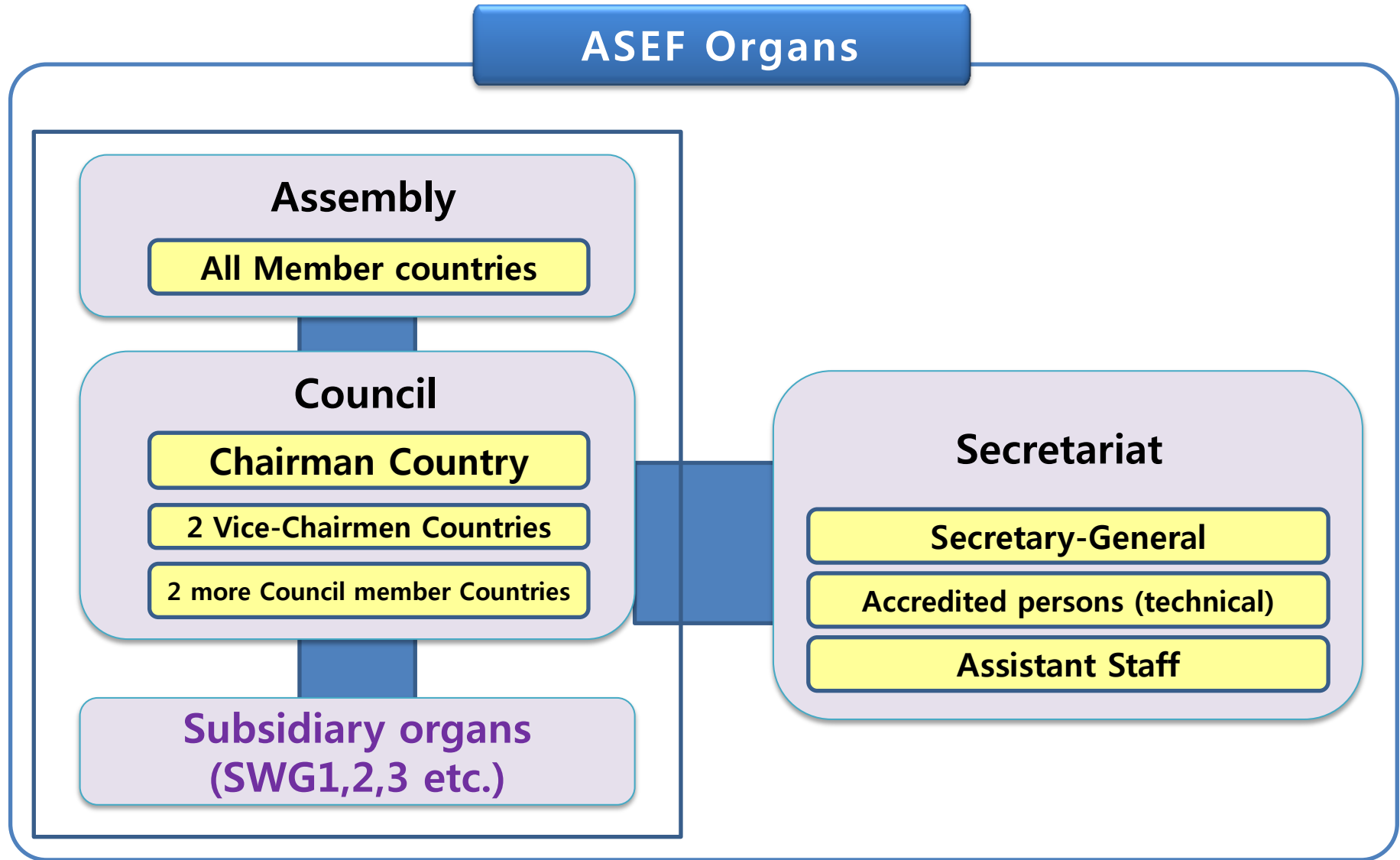
■ Functions

1. To hold the **ASEF Forum**;
2. To **exchange views and opinions** among members on technical matters on shipbuilding;
3. To develop **relationship with other international organizations**; and
4. To **contribute and offer opinions** to external bodies including **IMO and ISO.**

■ Mission : IMO Consultative status



1. Introduction of ASEF



2. Background of ASEF TWG/SWG1

THE MOVEMENT FOR FUTURE IMO PSPC

TSCF(Tanker Structure Cooperative Forum)'s current activity

■ Publication of "A Comparison of TSCF and PSPC B.T.Coating Guidance" (TSCF IP 005_2014/11/22)

- Based on **TSCF 15 & Owner's Experiences** and Best Practice.
- Intention to enhance the present IMO PSPC Rule up to **the level of TSCF 15 guidance or more.**
- Ask review and feed back for Shipbuilding industries regarding TSCF IP before next step.
- Eventually, Plan to be related to **this Paper submission to IMO.**

■ Shipbuilders' feedback for TSCF IP

- Impact on Shipbuilder's **additional expense, construction schedule.**
- Lead to huge **investments in production facilities.**
- **Not considered** the actual Shipbuilder's working environment & Production system.
- **Insufficient in firm evidence** from the Ships applied with IMO PSPC.
- Therefore, Should **not be associated to** regulatory amendment requirement.

➔ **Feedback with comments from Shipbuilders is under consideration for further work by TSCF.**



2. Background of ASEF TWG/SWG1

1 Key Items of TSCF IP Comparison with IMO PSPC

순서	항목	GUIDELINES for TSCF	IMO PSPC
1	Block joints area	<ol style="list-style-type: none"> 1. Sa 2.5 Grade (30-75 microns profile) >> Vacuum Blasting 2. Positions and number of block erection joints should be optimized. 	<ol style="list-style-type: none"> 1. St3 or Sa 2.5 2. Not stated.
2	Blasting Abrasive	<ol style="list-style-type: none"> 1. Abrasives are not to be recycled/reused. 2. Certification for abrasive quality should be included. 	<ol style="list-style-type: none"> 1. Not stated. 2. Not stated.
3	Hydro blasting	<ol style="list-style-type: none"> 1. Hydro blasting is an acceptable form of surface cleaning, where a suitable surface profile has already been established. 	<ol style="list-style-type: none"> 1. Not stated.
4	Stripe coating	<ol style="list-style-type: none"> 1. To be applied to the prepared steel. 2. Stripe coat by brush shall precede each coat 	<ol style="list-style-type: none"> 1. Sequence of Strip coat is not stated. 2. Roller to be used.

2. Background of ASEF TWG/SWG1

2 Key Items of TSCF IP Comparison with IMO PSPC

순서	항목	GUIDELINES for TSCF	IMO PSPC
5	PMA, Non-Integral Outfitting & Specialized surface	<ol style="list-style-type: none"> All PMA and outfitting items to be coated to the same standard as the tank coatings, including galvanized or corrosion resistant alloy. Galva. to be sweep blasting with over 30 microns profile. 	<ol style="list-style-type: none"> Recommended. Not stated.
6	Environment Conditions	<ol style="list-style-type: none"> During the painting application and final curing phases. RH inside the spaces shall not exceed 60%, Dew point. The minimum surface temperature is not, to be lower than +10°C. 	<ol style="list-style-type: none"> During the painting application RH not exceed 85% Minimum temperature not stated.
7	Defect Resolution	<ol style="list-style-type: none"> Some form of guidance on blistering and other defects. All tanks to be filled with seawater (or potable water) for at least 48 hours. 	<ol style="list-style-type: none"> Not stated. Not stated.

2. Background of ASEF TWG/SWG1

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New Start, New Dream!

THE PSPC REVIEW BY NACE PROPOSAL

■ The activity of NACE International

- Taking on the **actual data collection, management & evaluation.**
- With **unbiased & neutral ways** of collaboration with Ship owner, Shipbuilder & Class.
- To be **beneficial for Ship owner & Shipbuilders** in preparation for the future PSPC update.

■ Current situation

- Currently, NACE International has been preparing to **encourage Ship owners and IACS** to join into PSPC Review.
- Ship owners initially expressed general interests to be values for them, however did not give an immediate consent to take up this project and **stated to need more internal discussion and approval.**
- IACS commented that they **could engage in developing the UI** through this Review, and seemed to be in a neutral position.

➡ **Need to make a further progress with wider cooperative activities.**



3. Introduction of ASEF TWG/SWG1

1 Sub-Working Group 1

Sub-Working Group1



[Technical Topic]
Update of "Performance Standard for Protective Coating"

Chairman
Jong Woo Park/STX O&S

[KOSHIPA_6 member]
Kyung Koo Lee/H.H.I
Tae bong Park/S.H.I
Andrew Hwang/S.H.I
Yong woon Kim/D.S.M.E
Joung Kee Rhee/H.S.M.E
Boo Yeol Kim/S.S.M.E

[SAJ_4 member]
O Kitamura/Mitsubishi
Hideo Obata/Namura
Hideo Shin/Oshima
Hisataka Yamashita
/Sanoyas

[CANSI_4 member]
Jiameng Wu/MARIC
Meilin Li/Shipbuilding TRI
Xiangjun Meng
/Dalian S.I.C
Xiaomin Wang/Guanzhou
SICL

[TSBA_2 member]
Wasin Wacharapinyo/AMS
Krairerg Hemarat/AMS

3. Introduction of ASEF TWG/SWG1

2 Key principles and strategic policies

- **Exchange of technical opinions and information** through cooperative cross industry activities.
- **Preemptive measurement for future PSPC Updating**
 1. **Feedback from related industries** based on accumulated experience of PSPC.
 2. **Sharing Advanced knowledge and technology** gained by concerned industries.
 3. **Collaboration activity** with NACE International for PSPC Review.
 4. Countermeasure against **TSCF movement related to improving PSPC.**



Contribution to be granted IMO Consultative status



4. Main activities of ASEF TWG/SWG1

1 List of THE UPDATE OF IMO PSPC_ASEF TWG/SWG1

1. 24 Mar. 2016

The letter of request for "List of THE UPDATE OF IMO PSPC_ASEF TWG/SWG1" was sent to SWG1 participants for the first step of activities.

2. 23 Apr. 2016

The first replies on request were received from KOSHIPA, CANSI & SAJ.

3. 20 Sept. 2016

"List of THE UPDATE OF IMO PSPC_ASEF TWG/SWG1" was finally updated with additional items from KOSHIPA, CANSI & SAJ that **each of country associations would intend to discuss for improving the regulatory requirement.**

- This document shall be planned to be proposed and treated as the Shipyards' key items after internal discussion, for the review or future updating of IMO PSPC rule and/or IACS UI SC 223.



4. Main activities of ASEF TWG/SWG1

1. Alternative System

IMO Resolution MSC. 215(82) PSPC for DSBT all Types of Ships and DSSS of Bulk Carriers	Draft proposal for Update of IMO PSPC
<p>8 ALTERNATIVE SYSTEMS</p> <p>8.1 All systems that are not an epoxy-based system applied according to table 1 of this Standard are defined as an alternative system.</p> <p>8.2 This Standard is based on recognized and commonly used coating systems. It is not meant to exclude other, alternative, systems with proven equivalent performance, for example non epoxy-based systems.</p>	<p>8 ALTERNATIVE SYSTEMS</p> <p>8.1 All systems that are not an epoxy-based system applied according to table 1 of this Standard are defined as an alternative system.</p> <p>8.2 This Standard is based on recognized and commonly used coating systems. It is not meant to exclude other, alternative, systems with proven equivalent performance, for example non epoxy based systems.</p>

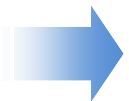


New technology to be facilitated and reflected

4. Main activities of ASEF TWG/SWG1

2. CTF Inspection Agreement for surface preparation and coating processes

IMO Resolution MSC. 215(82) PSPC for DSBT all Types of Ships and DSSS of Bulk Carriers	Draft proposal for Update of UI SC 223
<p>3 GENERAL PRINCIPLES</p> <p>3.2 Inspection of surface preparation and coating processes shall be agreed upon between the ship owner, the shipyard and the coating manufacturer and presented to the Administration for review.</p> <p>UI SC 223</p> <p>1. Inspection of surface preparation and coating processes agreement shall be signed by shipyard, ship owner and coating manufacturer and shall be presented by the shipyard to the Administration for review prior to commencement of any coating work on any stage of a new building and as a minimum shall comply with the PSPC.</p>	<p>Option 1.</p> <p>1. It is recommended that Inspection of surface preparation and coating processes agreement shall be signed by shipyard, ship owner and coating manufacturer and shall be presented by the shipyard to the Administration for review prior to commencement of any coating work on any stage of a new building and as a minimum shall comply with the PSPC.</p> <p>Option 2.</p> <p>1. The shipyard, the ship owner and the coating manufacturer shall be obliged to agree on Inspection of surface preparation and coating processes agreement which to be presented by the shipyard to the Administration for review ... ,</p>



Controversial interpretation to be modified.

4. Main activities of ASEF TWG/SWG1

New Start, New Dream!

3. ISO 16145-1:2012

IMO Resolution MSC. 215(82) PSPC for DSBT all Types of Ships and DSSS of Bulk Carriers	Draft proposal for Update of IMO PSPC
-	“ISO 16145-1:2012“Ships and marine technology— Protective coatings and inspection method Part1:Dedicated sea water ballast tanks” should be unified with PSPC standard or properly stated in PSPC.



ISO Document to be operable in actual construction process

4. Main activities of ASEF TWG/SWG1

4. Ease the requirement on the number of stripe coat

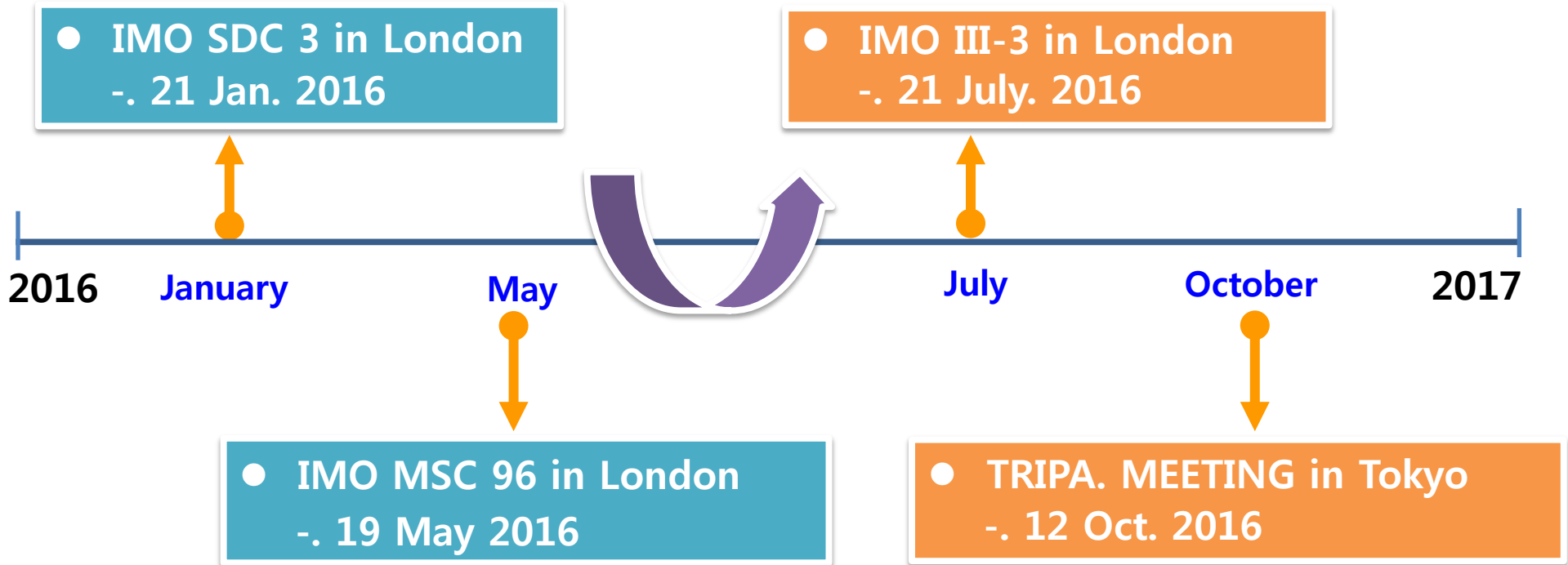
IMO Resolution MSC. 215(82) PSPC for DSBT all Types of Ships and DSSS of Bulk Carriers	Draft proposal for Update of IMO PSPC
<p>Table 1 .4 Job specification</p> <p>There shall be a minimum of two stripe coats and two spray coats, except that the second stripe coat, by way of welded seams only, may be reduced in scope where it is proven that the NDFT can be met by the coats applied, in order to avoid unnecessary over-thickness. Any reduction in scope of the second stripe coat shall be fully detailed in the CTF.</p>	<p>Table 1 .4 Job specification</p> <p>There shall be a minimum of two stripe coats and two spray coats, except that the second stripe coat, by way of welded seams only, may be reduced in scope where it is proven that the NDFT can be met by the coats applied, in order to avoid unnecessary over-thickness.</p> <p>Area where one (1) stripe coating is obviously enough are butt weld and fillet welding bead by Automatic/semi-automatic welding machines.</p> <p>Any reduction in scope of the second stripe coat shall be fully detailed in the CTF.</p>



To be verified with collecting data of in service Vessels

4. Main activities of ASEF TWG/SWG1

2 Meetings for promoting the start-up of PSPC Review



4. Main activities of ASEF TWG/SWG1

Summary of Meeting Results

1. The activity in relation with PSPC Review has not been preceded as it is expected, since the majorities of **ship owner associations still have not perceived its necessity and are reluctant to join its activity**, expressing the general satisfaction of present coating performance.
2. **The main concern of Ship owner associations** is that PSPC Review might lead to regulatory amendment action to degrade the quality of coatings in W. B. Tanks and need to define or adopt suitable maintenance guidelines to be performed by Ship owners.
3. However, there is a little room for compromising that Ship owners expressed to can agree with PSPC Review, on the condition that **their concerns are eliminated and sufficient amendments are reflected in the PSPC Review Plan** to be made by NACE International.
4. As a result of a series of meetings among stakeholders, **NACE International is preparing for revised PSPC Review Plan of Action & Mile stones** for developing a step forward in the next joint meeting.

5. FUTURE PLAN

- **Exchange of information and view on IMO PSPC**

Contribute to managing the exchange of information and views on crucial issues on present IMO PSPC and/or the PSPC REVIEW.

- **Collaboration with NACE International in relation with PSPC Review**

Perform to further study and discuss with stakeholders such as Ship owner associations, IACS and NACE international in order to consider the appropriate & practical measure for promoting the start-up of PSPC Review.
If needed and possible, can contact other consultancies for joint works.

- **List of THE UPDATE OF IMO PSPC_ASEF TWG/SWG 1**

Conduct to find out efficient ways of proposing and discussing the items stated in "List of THE UPDATE OF IMO PSPC_ASEF TWG/SWG1" for revision of IMO PSPC rule and/or IACS UI SC 223.





THANK YOU!