



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

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2017. 10. 25  
ASEF TWG/SWG1 CHAIRMAN  
JONG WOO PARK

# 1. Introduction of ASEF TWG/SWG1

New Start, New Dream!

## 1 Key principle and strategic policies

- Exchange of technical opinions and information on the common issues of IMO PSPC through cross industry cooperative activities.
- Preemptive measurement for future IMO PSPC Updating
  1. **Sharing advanced knowledge and new technology among Members.**
  2. **Feedback to the related industries/bodies** based on the PSPC experience.
  3. **Collaboration activity** with NACE International for PSPC Review.
  4. **Cooperative responding with TSCF movement related to future IMO PSPC.**

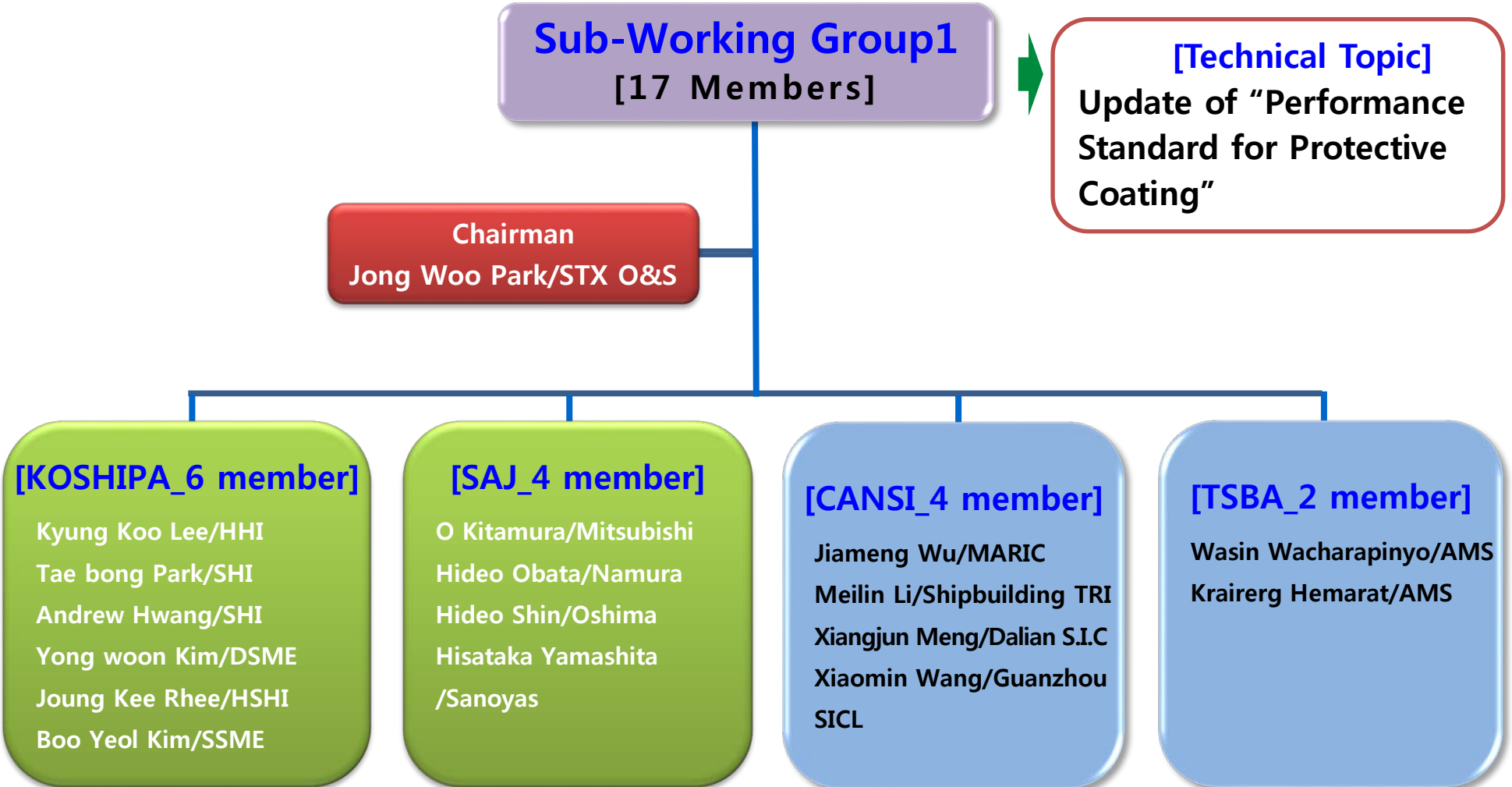
*Contribution to the work of IMO,  
By accomplishing substantial IMO PSPC Updating*



# 3. Introduction of ASEF TWG/SWG1

New Start, New Dream!

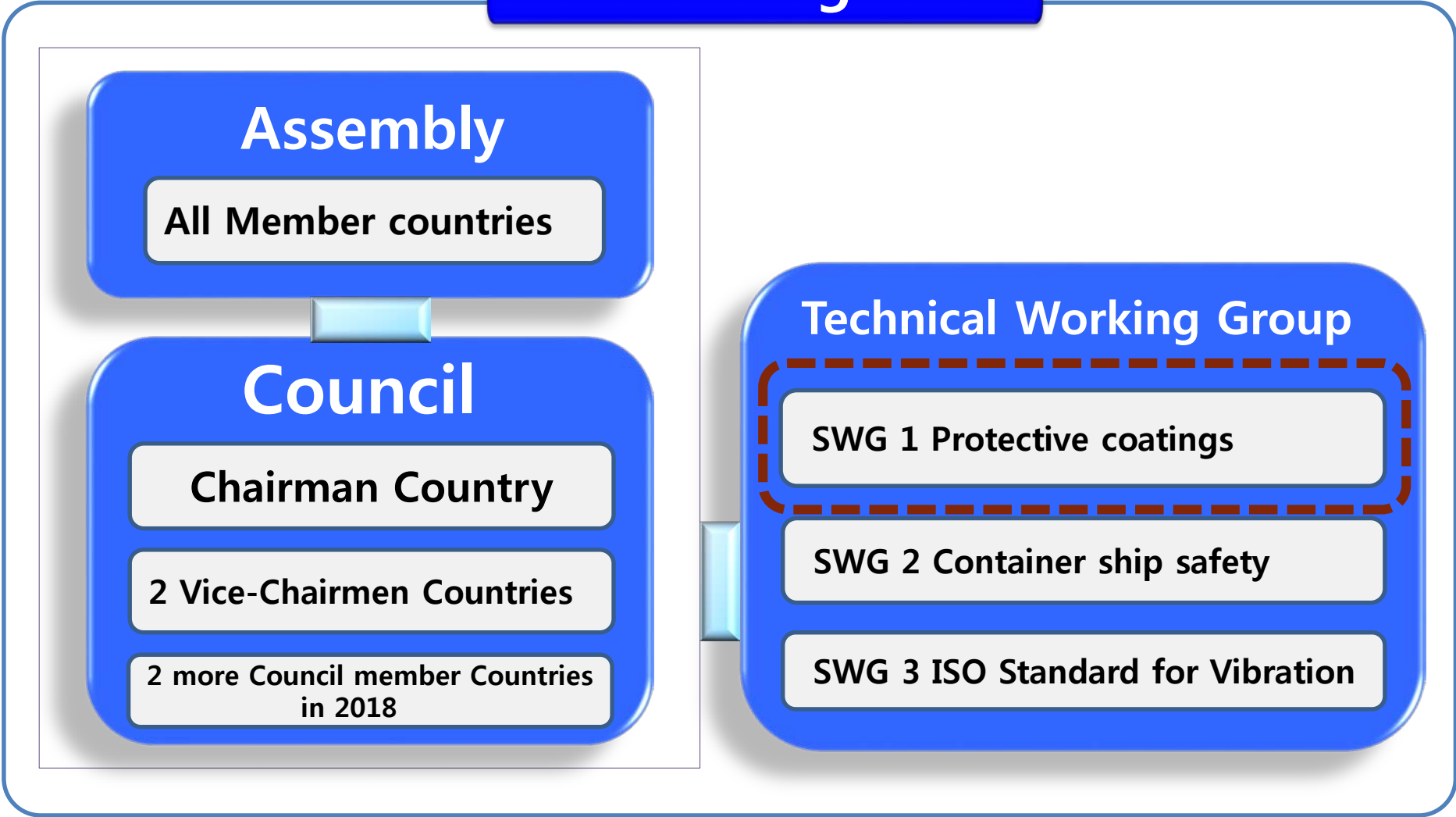
## 2 Structure



# 1. Introduction of ASEF/TWG/SWG1

New Start, New Dream!

## ASEF Organs



## 2. Main activities of ASEF TWG/SWG1

### 1 TSCF Trends related with Future IMO PSPC

1. **TSCF Information Paper “A Comparison of TSCF and PSPC B.T.Coating Guidance” – Owner’s Experiences and Best Practice**, published in November 2014.
2. **Shipbuilders’ feedback with comment for TSCF IP was send to TSCF** in October 2015.
  - A consultative group of coating experts from China, Japan and Korea was established to respond to TSCF movement.
  - **TSCF has been taking into consideration of Shipbuilders’ feedback with comment** for preparing further works.
3. **TSCF presented a plan to make an amendment to the TSCF IP** at the TSCF Shipbuilders’ Meeting held in October, 2016 in Busan, Korea.
4. **Discussion & preparation about the revision of TSCF IP was performed by TSCF Working group** in March 2017 in Athens, Greece .

## 2. Main activities of ASEF TWG/SWG1

### Key review items in TSCF IP

1. Surface treatment method & Abrasive management
2. Strip coating procedure & Roller permitted criteria
3. Coating scheme of PMA & Specialized outfitting
4. Guidelines of detection & repair works for coating defects
5. New construction or reinforcement of Painting & Curing shelter

### Major Impact to Ship owner and Ship builder

Additional material  
& labor cost

Supplementary facility  
investment cost

Extended  
construction period

**Vast cost & Construction impact !**

## 2. Main activities of ASEF TWG/SWG1

### 2 Main concern items for future IMO PSPC Updating

*The document was finally completed with each members' proposed items within ASEF SWG1 that would intend to discuss for the potential review of Future IMO PSPC and IACS UI SC 223 Updating.*

#### 1. Alternative System



New technology to be facilitated and reflected

#### 2. CTF Inspection Agreement for surface preparation and coating processes



Controversial interpretation to be modified.

#### 3. ISO 16145-1 & 2 :2012

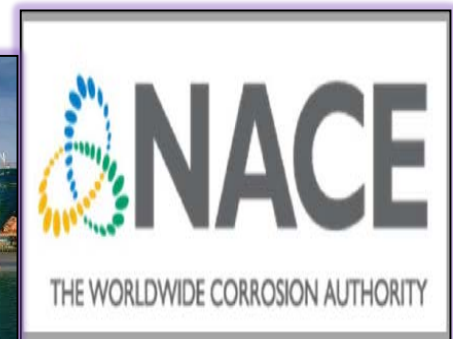


ISO Document to be operable in actual construction process

## 2. Main activities of ASEF TWG/SWG1

### 3 PSPC REVIEW by cooperation with NACE

1. ASEF SWG1 have made an effort for the initiation of PSPC Questionnaire activity to be joined by all stakeholders as a first step of PSPC Review, while taking into consideration that the Shipping industry would not lose the faith of NACE impartiality.
2. When it comes to PSPC Questionnaire contents and its on-line technical system, ASEF SWG1 has provided proper advices to NACE and exchanged opinions with Tripartite members (Ship owners, Ship builders & Classification societies), before official opening of online portal site of PSPC Questionnaire.





## 2. Main activities of ASEF TWG/SWG1

### What is the PSPC REVIEW ?

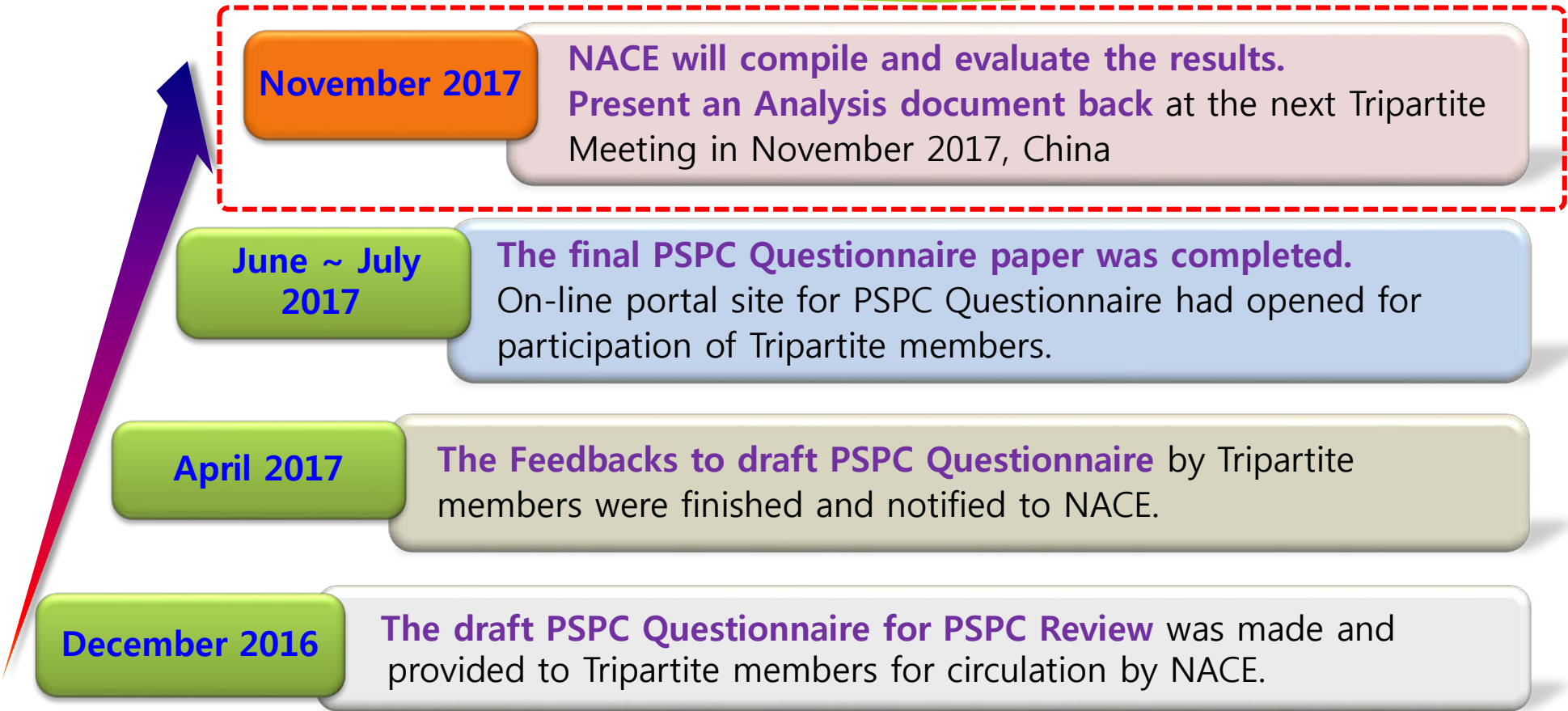
- **The official proposal of NACE International (at Tripartite Meeting in October 2014)**
  - Taking on the **actual data collection, management & evaluation of present IMO PSPC**
  - With **unbiased & neutral ways** of collaboration with Ship owner, Shipbuilder & Class
  - To confirm the necessity for PSPC updating, through PSPC Review among stakeholders

▶ *To be beneficial for Ship owners & Shipbuilders in preparation for the future PSPC update*



# 3. The Plan of PSPC Review in 2017

*PSPC Review adopted as ongoing item in the 2016 Tripartite meeting  
-. The first step is PSPC Questionnaire activity.*



# 4. PSPC Questionnaire activity

- ➔ As a first step for PSPC Review, PSPC Questionnaire activity has been conducted in order to confirm whether the current IMO PSPC needs to be reviewed or not.
- ➔ If further review is found to be necessary, the review items shall be discussed, selected and studied among Tripartite members, and the joint working group can be created for the purpose of PSPC Review.



- ➔ The on-line sites for survey are designated for stakeholders.
  1. Ship-owners / Operators
  2. Ship Builders
  3. Classification societies
  4. Coating inspectors incl. Paint manufacturer

# 4. PSPC Questionnaire activity

## 1. The key discussion items for PSPC Questionnaire

NO.	Comment by SWG1	NACE Reply	Remark
1	<p>It is our remark that PSPC questionnaire is better to be classified into two(2) type PSPC questionnaires, in order to confirm and review more concretely, based on the completion of coating application as follows.</p> <ul style="list-style-type: none"><li>1. Part 1 : Prior to Ship's delivery (prior to completion of coating application)</li><li>2. Part 2 : After Ship's delivery (in service after coating application)</li></ul>	<p>Noted. Creating two separate surveys at this point is impractical.</p> <p><b>We will, however, attempt to associate each of the comments into these two very broad categories in our analysis.</b></p> <p>This will be particularly helpful in evaluating any trends.</p>	<p>The result of PSPC Questionnaire shall be divided into two(2) categories as available.</p>
2	<p>We, unfortunately, cannot understand how to generate the result of this questionnaire by the gradient scale question? (counting points?)</p> <p><b>Could you advise us NACE's aiming for this methodology?</b></p>	<p><b>The gradient scale question is to identify areas where there is consensus in whether or not a particular aspect of the PSPC is meeting expectations.</b></p> <p>This will help to either highlight best practices or identify areas for future discussion within Tripartite.</p>	<p>NACE reply is noted.</p>

# 4. The key discussion items for PSPC Questionnaire

NO.	Comment by SWG1	NACE Reply	Remark
3	<p>Since PSPC-COT (MSC.288) applied vessels are now 2~3 years old, it is not appropriated to evaluate targeted long term performance of the coating system at this moment.</p> <p><b>Scope to be limited to PSPC-WBT only as a first step.</b></p> <p>However, other points, such as COT-PSPC should not be ruled out in future reviews.</p>	<p>The long term performance of the applied coating is not the focus, and whether or not PSPC implementation meeting expectations.</p> <p><b>Ship owners consistently wanted to include this for the PSPC Review.</b></p>	<p><b>Inclusion is agreeable, but Shipbuilders believe that there will be confusion, if discussion proceeds in both two(2) issues at the same time.</b></p> <p><b>Therefore, the Review items based on the results of PSPC Questionnaire shall be separately posted into two categories (W.B.T and C.O.T) in order and accordingly, PSPC-W.B.T should be discussed and reviewed firstly.</b></p> <p><b>In case of PSPC-COT, it is desirable that the direction of Review should be determined according to results of PSPC Review for W.B.Tank.</b></p>

# 4. The key discussion items for PSPC Questionnaire

NO.	Comment by SWG1	NACE Reply	Remark
4	<p>Best practice can be generally acknowledged something that only raises the quality of coating and therefore, if it is more than what is needed, Shipbuilders are not willing to follow, unless this is dealt with as extra items.</p> <p>The description "Appropriate practice from the view point of quality, workability and cost" seems to be better instead of "best practice".</p>	<p>The term of best practice was removed but the request for a case study was retained.</p>	<p>NACE reply is noted.</p>
5	<p>Because ICCP is not applicable to ship WBT due to gas evolution hazard, etc.</p>	<p>Acknowledged. Question was modified in order to determine the frequency of using supplemental CP systems.</p>	<p>NACE reply is noted.</p>

# 4. The key discussion items for PSPC Questionnaire

NO.	Comment by SWG1	NACE Reply	Remark
6	<p>&lt;Additional questionnaires&gt;</p> <ol style="list-style-type: none"><li>1. How old was the coating when failure of a PSPC coating system was encountered? ( )years</li><li>2. How much portion of the area is affected by the failure? ( )% or to give a gradient scale or e.g. Minor/Moderate/Major/Significant</li><li>3. Which part of the area is mainly affected by the coating failure? e.g. Flat surface / fillet weld / butt weld/ corners / edges /Other's</li></ol>	Well noted	Additional questionnaires shall be inserted in PSPC Questionnaire.

## 4. The key discussion items for PSPC Questionnaire

NO.	Comment by SWG1	NACE Reply	Remark
7	<p>The recent discussion on the GBS revealed that certain Ship owners were appealing that the maintenance to the coatings will be difficult, and therefore the scantlings are to be set to recognize longer time exposure to corrosive conditions.</p> <p>This question needs to be dealt with "There is already an ESP requirement at IMO which demands owner to carry out inspections and maintenance (or repairs if the conditions is aggravated), and there is no doubt that PSPC standards have taken into consideration of these premises."</p>	<p>Part of this is the education on the coatings and the trust of the performance. <b>That won't happen over night and is one of the reasons we want to conduct the PSPS Review, to start the discussion and start to raise awareness.</b></p>	<p><b>The coating effectiveness needs to be monitored, and best possible maintenance measures are taken by the Ship in varying circumstances.</b></p> <p><b>The proper in-service maintenance and repair shall be more crucial than amending PSPC Rule to higher grade.</b></p>

- Total 45 items had been discussed with NACE.



# 5. Major PSPC Questionnaire list

1. Rate the technical accuracy of the PSPC definitions.  
1. Very good   2. Good ✓   3. Acceptable   4. Poor ✓   5. Very Poor
2. Rate the degree to which these definitions can be consistently interpreted and applied in practice by different parties.  
1. Almost always ✓   2. Often   3. Sometimes   4. Seldom ✓   5. Never
3. How was premature failure of a PSPC coating system, if any, discovered?  
1. None discovered ✓   2. In service inspection/Dry dock inspection/Boundary failure ✓  
3. Multiple of these   4. Others
4. Rate the usefulness of the CTF  
1. Extremely   2. Very ✓   3. Moderately   4. Slightly   5. Not at all
5. Was a coating standard applied to areas outside of those require PSPC application?  
1. Y   2. N (as per paint manufacturer's recommendation) ✓

*Blue mark ✓ : example of answer(s)*

# 5. Major PSPC Questionnaire list

6. With reference to the non-integral or other independent items inside the tank, what coating methodology is followed?
  1. PSPC
  2. As supplied by manufacturer (No additional coating) ✓
  3. Other (In accordance with the Builder's practice) ✓
  
7. Who carries out the verification of shipyard "application procedures" (Section 4.4.4 for BWT and Section 4.6.4 for COT)?

=> Example of answer : Administration(Class) or Paint manufacturer
  
8. On what industry standard is the shipyard procedure based ?

=> Example of answer

  - ISO 16145-1\_Part 1 Dedicated sea water ballast tanks
  - ISO 16145-3\_Part 3 Cargo oil tanks of crude oil tankers

In case of Korean Shipyards, KSPIP(Korean Shipbuilders' Painting and Inspection Practice) for IMO PSPC/WBT&COT is used as Shipyard standard procedure.
  
9. Rate the ease to which new and beneficial technologies can be integrated with PSPC standard requirements to improve the coating process.
  1. Extremely easy
  2. Easy
  3. Fair
  4. Difficult ✓
  5. Extremely difficult

# 5. Major PSPC Questionnaire list

10. What aspects of the PSPC standard, if any, require further clarification?

=> Example of answer

IACS UI SC223 FOR PSPC 3.3.2 GENERAL PRINCIPLES

In compliance with IACS UI SC223, it defines that three parties agreement shall be signed prior to commencement of any coating work on any stage of new building.

It means that if three parties' agreement is not signed by any side, it can affect to any coating works including shop-priming process.

Thus, this kind of controversial interpretation or paragraph requires further clarification.

11. What methods are preferred or used for stripe coatings?

=> Example of answer

The each stripe coating shall be carried out after each main coating by brush or roller.

The 1<sup>st</sup> stripe coat shall be same as the 2<sup>nd</sup> main coat, and the 2<sup>nd</sup> stripe coat shall be same color as the 2<sup>nd</sup> main coat, considering the efficient workmanship and inspection based on the satisfaction of coating performance.

- Total 55 Questionnaires have been under investigation.

1. **The revision edition to TSCF I.P might be published in near future. Thus,** their movement shall be continuously observed in 2018.

**In case TSCF activity is associated with future IMO PSPC update,** it is essential to proceed through mutual cooperation between TSCF and ASEF on behalf of Shipbuilders.

2. **The result of PSPC Questionnaire shall be thoroughly reviewed and studied by SWG1.**

Through internal exchange of opinions and information, **the unified consensus on planning direction for PSPC Review is necessary** to properly cope with future IMO PSPC

In this regard, **active participation of SWG1 Members shall be encouraged in PSPC Review activity** for Shipbuilding industry.

- 1) **Highlight Shipbuilding industry's appropriate practices**
- 2) **Make it easy for new and beneficial technologies to be incorporated into IMO PSPC.**
- 3) **Controversial paragraphs and interpretation shall be reconsidered and aptly updated.**

## Global Partner Agreement

### ■ The suggestion of NACE International to ASEF (August 2017)

- Enter into non-exclusive relationship between ASEF and NACE
- To provide interchange between Partners to improve scientific and technological in corrosion-migration
- To serve Shipbuilding interests through coordinated efforts

- *NACE ask to have a signing ceremony between ASEF and NACE on the day before Marintech-China opens. (Marintech China to be held in Shanghai between December 5 ~ 8)*
- *It might be appealing for CANSI as an major event soon after CANSI takes over the chairmanship of ASEF.*

- Needs careful consideration and review within ASEF Council



**Thank you for attention!**

***ASEF/TWG/SWG1***