

Productivity Improvement Forum 2018

Certification Working Group: Certification Progress and Roadmap

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Certification - Case for Action and Introduction to the Working Group

Purpose of Certification

- I. Help companies calibrate their level of Process Maintenance* productivity against an international yardstick, facilitate identification of enhancement opportunities and drive continuous improvement in a sustainable manner.
- II. Provide a competitive edge for certified companies.
- III. Increase industry adoption, thereby elevating the overall productivity of the PCM industry, and positioning Singapore as country of choice for foreign investors.

Objective

- The Working Group shall develop a Tiered Certification System for the Process Construction and Maintenance industry.

Members

- Plant owners: Chevron Oronite, ExxonMobil, Shell, SRC
- Contractors: Hai Leck, Hiap Seng, HSL, Mun Siong, PEC, Rotary
- ASPRI, EDB,, SCIC

Progress Update: Since PIF 2017

Certification WG:

- ▶ Jointly chaired by Contractors and Plant Owners through representation by ASPRI & SCIC. - (as of 1Q 2018)
- ▶ Joint leadership to ensure certification outcome(s) creates real value for the industry and that compliance does not become a liability.

Trial Certification : Updates

Objectives of Trial Certification

- I. To execute the current version of strawman and identify operational & verification hurdles to refine certification framework.
- II. To have an open dialogue between the auditors and the companies, thereby surfacing any issues both parties faced in the auditing process.
- III. To access the capabilities of individual companies and assess where is the local entry point for being certified.

- ▶ Started on 19th June 2018 and is in progress.
- ▶ Interview with SETSCO, ASPRI, SCIC and Individual Companies

SETSCO Services Pte Ltd have been engaged to execute the trial certification with the 6 big companies. 5

Trial Certification

Preliminary

Positive Observations

- I. Companies have shown keen interest and enthusiastic in Participation.
- II. Setsco Services Pte Ltd as the auditing company provided insights and knowledge on the certification process.
- III. Openness and Transparency during the Trial Certification Interview.
- IV. **Active Discussions with many constructive questions asked and clarifications sought.**

Trial Certification

Preliminary

Opportunities Identified

- I. Current Strawman needs to be refined and certain area needs more granularity.
- II. Further outreach to the industry on tools like AA and BPPII.
- III. A need to define the role of Supervisors and align across industry.
- IV. Defining common understanding of multi-skill and recognition of deep-skilling.

Certification Journey

► Certification is still a work in progress.

1. Developing the framework

Pilot Projects WG

- Introduced processes for productivity measurement

Mechanization WG

- Developed scorecard for mechanization level

Workers Capability WG

- Aligned industry skills competencies for workers and field supervisors

Certification WG

- Developed a certification strawman

2. Trial, Refine & Endorse

Trial Certification

- **ON-GOING:** Pilot with selected contractors
- Review to identify gaps & opportunities

Refine framework

- Integrate WFP & Mechanization Index
- Address gaps identified in trial.

Industry endorsement

- Plant Owners -SCIC
- Contractors -ASPRI
- Government

3. Adoption & Sustenance

Maximize industry adoption

- Sustained outreach & communications

Establish Productivity Indices & Measurements for Singapore PCM Sector

Establish competitive edge for certified members.

Thank you

APPENDICES

Certification Roadmap - DRAFT

TASKS		2016	2017 to Feb- 2018	2018										
				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	Development of basic framework													
2	Trial certification + Field verification													
3	Re-group, share learning, modification / clarification													
4	Share Preliminary Findings from Trial Certification													
5	Refine Certification Strawman and establish industry benchmark													
6	Appointing a Certification Committee													

- Certification is still a work in progress.

Certification Straw Man

People		For Maintenance and minor projects (< 500 workers) [number to be revised]	
		Min Requirement	Remarks and expectations
Bronze / Basic Level	Supervisor:Foreman:Worker Ratio	01:04:20	<i>To be reviewed further</i>
	New to work : Experienced worker Ratio	01:03	Supervisor and foremen must meet requirement presented by Worker Capability work group.
	% of multi skilled workers	15%	Based on 13 skill set
	% of workers with more than 2yrs experience in Singapore PCM industry	35%	Recommend to set up database of workers in Singapore using the training data. Need to discuss and develop further
Silver / Developing	Supervisor:Foreman:Worker Ratio	01:04:16	
	New to work : Experienced worker Ratio	01:04	All new workers must be assigned a mentor
	% of multi skilled workers (2 or more)	30%	
	% of workers with more than 2yrs experience in Singapore PCM industry	50%	
	Deep Skilling		Currently, industry has no yardstick, important component to be developed. Examples ; crane drivers, specialist welders etc
Gold / Progressive	Supervisor:Foreman:Worker Ratio	01:04:12	
	New to work : Experienced worker Ratio	01:05	
	% of multi skilled waters (2or more)	40%	
	% of workers with more thab 2 yrs experience in Singapore PCM industry	60%	
	Deep Skilling		
Platinum / Advanced			

Certification Straw Man

<u>Process</u>		<u>Min Requirement</u>	<u>Remarks</u>
<u>Bronze/Basic</u>	To show proof of use of activity analysis (AA)		At least one engineer and/or supervisor must be trained to use this tool
	At least two samples of AA must be available for checks for one calendar year		AA - Print out of one full activity - documentation proof
<u>Silver /Developing</u>	To show proof of use of activity analysis and BPPII		At least one engineer/supervisor must be trained to use this tool
	At least four samples of AA must be available for checks for one calendar year BPPII - one sample per calendar year.		AA - Print out of full activity - documentation proof submitted to COE and validated by auditor. BPPII - Self assessment, validated by auditor; based on capability
	Demonstrated results of AA and BPPII (Q1/Q2/Q3/Q4)	Q3	Lower of the 2 results
<u>Gold/ Progressing</u>	To show proof of use for all three work processes (AA, BPPII, WFP)		More than 30% of supervisors are trained to use AA tool
	At least 12 samples of AA must be available for checks for one calendar year BPPII - one sample per calendar year. Submit at least 3 samples each; 10-10 and benchmarking to COE in one calendar year for verification		AA - Print out of full activity - documentation proof, submitted to COE and validated by auditor BPPII - Self assessment, validated by auditor; based on capability. Attend one hour discussion with COE annually
	Demonstrated results (Q1/Q2/Q3/Q4) of AA, BPPII, WFP	Q2	Lowest of the 3 results
<u>Platinum/Advanced</u>	A least 6 samples of each ; 10-10 and benchmarking must be submitted to COE for verification in one calender year		To attend a one hr discussion with COE annually
	To show proof of use for all three work processes (AA, BPPII, WFP)	mid point of Q2	Lowest of 3 results

Communication Plan to ASPRI members

- ▶ The certification framework and productivity improvement tools will be introduced to ASPRI members. ASPRI will also provide complimentary usage of the AA tablet to their members.
- ▶ ASPRI will continue to encourage members to use the productivity microsite.
- ▶ Through the Workers Capability WG, ASPRI-IPI will work with the industry to develop new curriculum for Field Supervisor and foremen; also defining their roles.
- ▶ ASPRI will work with relevant partners such as SIMTech to look into new areas for improvement for their members.

Communication Plan to SCIC members

- ▶ Inform Plant Owners of the certification initiative.
- ▶ Case studies sharing to support adoption drive
- ▶ To support adoption, the requirements must be incorporated into contract language with PCM companies.