

| HISTORY LOG |           |                        |             |              |  |
|-------------|-----------|------------------------|-------------|--------------|--|
| Rev.        | Date      | Description of Changes | Originator  | Approver     |  |
| 0           | 31 Mar 11 | Initial                | Jeffrey Foo | Lee Kock Hin |  |
| 1           | 20-Sep-12 | Approved               | Jeffrey Foo | Lee Kock Hin |  |
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## 1 Internal Audits

The Internal Audit is an important aspect of the Quality Management System. The system of internal audit is an important means for continual improvement.

In PSC, there are 2 types of internal audits namely: Project Management and Engineering Milestone check and Project internal audit.

- a. Project Management and Engineering Milestone check is mandatory for all projects executed by PSC which is carried out throughout the project lifecycle at different phases. Refer to SNW-QM-101 & SNW-QM-112 for detail.
- b. Project internal audit is a systematic and independent examination of work, based on ISO9001 requirement to determine whether quality practices and related results comply with planned arrangements. Project internal audit also examines whether these planned arrangements are implemented effectively and are suitable to achieve the intended objectives. Project internal audit is not mandatory and will be carried out when necessary. It will be organized and executed as follows, when necessary:
  - Prepare and issue internal audit plan and schedule
  - · Execute the internal audit
  - Issue internal audit report
  - Follow up and close all internal audit observations, or non-conformities (if any).

This procedure will only describe the detail of Project Internal Audit.

## 2 References

SNW-QM-101, Quality Management System for Industrial Automation Projects SNW-QM-112, Project Management and Engineering Milestone (solutions) Checks SEW-QM-214, ISO9001:2008 Audit Checklist

### 3 Project Internal Audit Schedule

Project internal audit schedule will be informed by the Department Manager to the Project Manager one week prior to the audit.

### 4 Internal Audit Preparation

Project internal audit will be initiated by the Department Manager who will inform the Project Manager the audit plan, date, time and venue 1 week prior to the audit.

Audit checklists may be created from topics in the governing documents. These governing documents may include:

- Functional Specification
- Project Execution Plan
- · Project Quality Plan
- FAT Procedure
- Regulatory Requirements

The audit checklist is intended as a guide and should not restrict the audit investigation when findings raise further questions that are not specifically included in the checklist.

The auditor may also draw from the bank of audit check items to plan the audit. This forms a guide for auditors

# 5 Project Internal Audit plan

Project internal audit plan consists of the following elements will be sent via email to the Project Manager:

- · Date of audit
- Venue of audit
- Audit group (organizational unit or work team to be audited)
- Audit scope (objectives)
- Auditors
- Observers (if any)
- · Schedule of the audit activities

## 6 Project Internal Audit Opening Meeting

In his opening meeting the auditor should cover the following aspects of the audit:

- Introduce the audit team and the auditees.
- Review the audit plan scope and objective of the audit.
- Explain the methods and procedure to be used for the audit.
- Discuss administrative details such as location of records and personnel to be contacted.
- Confirm resources and facilities needed by the audit team are available.
- Clarify aspects of the audit plan that are not clear to the auditees Q & A.

# 7 The opening meeting must be attended by the manager of the audited function or other nominee. Project Internal Audit Implementation

Collect evidence to verify the implementation of the QMS. Ask questions and determine the project's ability to achieve defined quality objectives.

Evidence should be collected through

- Interviews
- Examination of documents
- Observation of activities and conditions in the area of concern

Information gathered through interviews should be verified by physical observation, measurements and records. Attention should be focused on recent changes in PSC Quality Manual, change in organization, claims received and previous audit findings.

Audit trails should be documented in the project internal audit report.

Project internal auditor may decide to terminate the audit if the nominee is not sufficiently familiar with the operation of the audited function.

# 8 Internal Audit Closing Meeting

In his closing meeting the auditor should cover the following aspects of the audit:

- Review the audit findings with the auditees to confirm its accuracy.
- Determine the persons responsible for closing the audit findings.
- Determine the required date of closure of the audit findings.

The auditor need not determine the corrective action for each finding at the closing meeting.

# 9 Project Internal Audit Report

Project internal audit report is issued to document the results of the audit. It should faithfully reflect both the tone and content of the audit.

The audit report consists of:

- · Audit objective and scope
- · Audit team members including auditees
- · Reference documents used in the audit
- Audit results

Project internal audit items are classified as follows:

| Critical | Serious deficiency in the QA system which affects product quality and may/will lead to safety being |  |  |
|----------|---|--|--|
|          | compromised.  |  |  |
| Major    | Absence of procedure(s) in QA system as required by clause(s) in standard(s) used,                  |  |  |
|          | Or a series of minor-non-conformances detected in the same areas or activities.                     |  |  |
| Minor    | Isolated non-adherence to procedures in QA system [Not Safety-Related]                              |  |  |
| OBS      | Observations  |  |  |

Project internal audit reports are addressed to the manager of the audited function and copied to PSC management.

Project internal audit reports are filed at the PSC Server, in the QMS folder.

Project internal audit reports are issued as soon as practical after the completion of the audit but no later than 30 working days from the closing meeting.

# 10 Internal Audit Follow up

The manager of the audited function is responsible to extend corrective action(s) accordingly to all occurrences of a similar nature within that function.

The auditor shall follow up to verify the closure and effectiveness of corrective/preventive actions. Verification results shall be updated in the audit report with a next level revision and distributed to the same persons as the original audit report.

If the auditor deems that the original findings are not appropriately closed, the item shall remain open. The auditor shall discuss (with the manager of the audited function) the action required to appropriately close the audit finding and he shall schedule another date for verification of closure of the audit finding.

Repeat follow-up audit shall be scheduled until closure is attained. If required, the Quality Manager should escalate the matter to expedite closure.

# 11 Management Review

Internal audit results are compiled by the Quality Manager to show trends and to aid analysis by top management.

PSC Ops Head reviews all Quality related data and recommendations in the internal audit report.

# 12 Security Classification

Internal Audit reports are confidential and must not to be disclosed to persons outside YEA unless they participated in the audit.

All PSC managers have read access to all internal audit reports.

#### 13 Internal Auditor Qualifications

Internal Auditors are appointed by PSC Operations Manager.

Internal Auditor must have attended "Internal Auditor" training.

After training, he must attend one or two internal audits as an observer after which he may commence auditing as a full fledged auditor.

The Lead Auditor plans and leads a team of auditors.

The Lead Auditor must have attended "Lead Auditor" training and performed 5 audits as an auditor.

The internal auditor should possess the following attributes:

- Open-minded and mature
- Possess sound judgment
- Analytical skills and tenacity
- Ability to perceive situations in a realistic way
- Understand complex operations from a broad perspective
- Understand the role of individual units within the overall organization
- Professionalism
- Politeness
- Inquisitiveness
- Impartial

## 14 End of document