Quality Management System Improvement Procedure

Version No: 1.1

**Revision History**

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# Introduction

## Objective

Organizational Process Development and Improvement Procedure is to facilitate in developing new processes, establishing work environment standards and rules & guidelines, identification of software process database with measurement & historical data, identification of process improvements based on periodic review of the deployed Quality Management System and resolve any issues of development or implementation of QMS.

## Scope

This process is applicable for all QMS process definition and improvement for projects, services and related areas like SEPG, Internal Audits, and Training etc. The definitions / improvements are based on CMMI-DEV and SVC Ver 1.3.

## Entry Criteria

* Periodic Review of quality management system
* QMS Change requests

## Input

* Knowledge of the activities in the organization level.
* Business plans and needs
* QMS Change requests
* Internal quality audit findings
* Organizational Quality assurance Plan

# Responsibilities

SEPG has the following roles and responsibilities.

* Process identification and definition
* Process deployment and process training
* Process Improvement
* Conducting Management Review Meetings.
* Process Reviews through SEPG meeting periodically.

The head of SEPG will be responsible for preparing/maintaining the QA Plan and coordinating with all SEPG activities.

# Tasks

The Senior Management is responsible for establishment & maintenance of work environment standards such as availability of Project pre-requisites that are Project specific and includes Software utilities, Hardware utilities, Training Attributes to be acquired along with procedures for the operation, safety and security of the work environment.

**Note**: The Project Managers are allowed to maintain same work environments for all the projects with senior management approval; if work environments for all projects are similar. Based on client request, the work environment shall be changed with an approval of senior management.

The senior management is also responsible for establishment and maintenance of organizational rules and guidelines for the structure, formation and operation of teams such as team structure guidelines, team authority and responsibility guidelines and team leader selection criteria. The rules and guidelines across teams include:

* How work can be done.
* How resources and inputs are accessed.
* How work is approved.
* How work is delivered and communicated.
* Who reports to whom?

## Software Engineering Process Group

### Organizational Quality Assurance Plan

SEPG Head prepares Organizational QA plan for Company Name. The contents of the QA Plan are as under:

* Detailed Schedule of Quality Assurance Activities
* Process Audit/Internal Audit Plan
* Process development and Improvement schedule
* Process Trainings
* Management Review Meeting schedule
* Establishing and maintaining PAL

Software Engineering Process Group (SEPG) is the group responsible and empowered for coordinating the process improvement and adaptation activities at Company Name. SEPG comprises members of the projects and is headed by a senior member of the organization. Members of other support groups may be invited when issues pertaining to their group are taken up for discussion. SEPG members are informed of the organization’s and project’s activities for software process development and improvement. SEPG’s role and responsibilities include:

* Development, review, and release of QMS elements (procedures, templates, standards, guidelines, records etc.).
* Establishment of organization set of standard processes that contain process elements (e.g., a work product size estimations or work product design methodology etc.).
* Establishment of life cycle model descriptions.
* Process Asset Library (PAL) / SPDB (Software Process Database) is established and maintained consisting quality management system / portal, Measurement Repository & historical data and information of work products.
* Quality Management System (QMS) / portal consist of processes, templates, guidelines and checklists etc whereas Measurement Repository consist Project related metrics and Risk related data.
* Upon finalization of the process improvement identification, improvement will be done through a formal Actions Plan.
* Sr. management will make sure that the Action plan is implemented as per QA Plan that evidenced in the **Project Management Plan** document.

## Process Assessments

* Software Engineering Process Group assesses the processes periodically based on:
* Internal Quality Audits findings
* Metrics Data Analysis.
* Process improvement suggestions including those for new process change and those received from employees
* Review of QMS status including the new releases and the revisions
* These inputs are discussed in the management review meetings primarily with the objective of:-
* Identifying process improvements and devising solutions to the problems identified
* Assigning responsibilities and due dates to implement the above
* The process performance goals are also reviewed in the SEPG meeting to identify required revisions and for monitoring the status.

## Handling change requests for QMS Documentation

* SEPG solicits suggestions from all employees for process improvement.
* Changes to QMS can take place due to any of the following reasons:
* Modification(s) to meet the changing business needs
* Corrective action initiated by findings of internal audits
* Periodic reviews to ensure suitability and effectiveness
* Problems/issues identified through employees feedback process or reported by employees.
* Changes in quality models / standards
* SEPG receives and tracks the requests through Change Request Log
* The change request is then evaluated by SEPG in terms of the expected benefits, feasibility, priority, and related aspects. Based on the evaluation of the change request; it’s either accepted and prioritized, or rejected. The initiator of the change request is informed of the same.
* In case the change request is accepted, a target date is assigned for closing the change request. SEPG approves the change before it is implemented.
* Before deploying any new process all relevant stake holders shall be notified and update in to PAL.
* SEPG and PM shall monitor that the new process shall be implemented in to the new projects or at the stage where the project is.
* Results of new process implementation shall be monitored and results shall be incorporated in ‘Feedback from Stakeholders/Senior Management’ section

# Training of Process Improvement

SEPG will be continuously monitoring and executing trainings for continual process improvement in the organization to ensure that the software processes currently implemented in the organization shall remain manageable and effective. SEPG members can take part in Training program as trainer besides other groups. SEPG members will be responsible for facilitation activities in the project.

The QMS, Quality models training and related materials are shared on the PAL maintained in Internal Network Common Sharing Folder at Server.

# Review of Project level tailored processes

Specify the guidelines for tailoring the organization set of standard processes such as improvement opportunity that SEPG provides, based on client / stakeholder requirement or senior management etc, which describe how the organization’s set of standard processes and organizational process assets are used to create defined processes.

SEPG is responsible for review of standards/operational process tailored by a project from the QMS as per tailoring guidelines. SEPG ensures that the description of software lifecycles that are approved for use by the projects are documented and maintained. Any changes proposed in the description of software lifecycle are documented, reviewed and approved by SEPG.

# Outputs

* Process Improvement Plan
* Change Request Log
* QMS Master list
* QMS Training record (includes Org training process, Attendance, training calendar, Training Plan, Training Analysis sheet & Training Feedback Form etc).

# Validation

Senior management monitors the Process improvements.

# Exit Criteria

* Updated QMS Master List.
* QMS documents shared in PAL.

# Approvals

The senior / top management reviews the implementation of this process.

# Quality Records

* Updated QMS Master List.
* QMS Training material in PAL.
* QMS Documents Change Request log.

# Reference / Related Documents

* QMS Master List.
* QMS Documents Change Request log