# 5 FAM 640 PROJECT QUALITY MANAGEMENT

(CT:IM-92; 08-01-2007) (Office of Origin: IRM/BPC/PRG)

#### **5 FAM 641 QUALITY MANAGEMENT**

(CT:IM-81; 02-13-2007)

- a. Quality Management (see 5 FAM 613) practices require that project managers must meet established quality standards.
- b. Examples of quality management practices are:
  - (1) Providing Quality Management training to the project team;
  - (2) Using pre-existing templates and checklists to manage consistency of work;
  - (3) Participating in walkthroughs, peer reviews, audits, and inspections on deliverable components;
  - (4) Getting the stakeholder involved in testing as early as possible; and
  - (5) Identifying basic quality standards that can be used in the review of products and processes.
- c. Project Quality Management is composed of three parts:
  - Quality Planning
  - Quality Control
  - Quality Assurance

### **5 FAM 642 QUALITY PLANNING**

(CT:IM-81; 02-13-2007)

- a. Quality Planning (see 5 FAM 613) identifies which quality standards are relevant to the project and determines how to satisfy them.
- b. The project scope, schedule, and budget are key inputs to Quality Planning.
- c. Quality planning is a key element of developing the project plan (see 5 FAH-5 H-200), and should be performed in parallel with other project planning processes.

- d. Quality Planning techniques used most frequently on projects are:
  - (1) Identifying quality standards;
  - (2) Planning how quality standards will be met;
  - (3) Planning for evaluation of deliverables against quality standards;
  - (4) Evaluating the cost of implementing quality standards; and
  - (5) Benchmarking (comparing actual or planned project practices to those of other projects).
- e. The project management team must identify the standards or regulations that are relevant to the project (e.g., NIST (National Institute of Standards and Technology), CNSS, FISMA (Federal Information Security Management Act), etc).

# **5 FAM 643 QUALITY CONTROL**

(CT:IM-81; 02-13-2007)

- a. Quality Control involves evaluating project deliverables to determine if they comply with the stated quality standards, and identifying ways to eliminate causes of unsatisfactory results. The responsibility of identifying and providing quality standards rests with the project managers and team.
- b. Quality Control occurs throughout the project. The progress and quality of the current deliverables are reviewed in detail at predefined checkpoints.
- c. Examples of Quality Control methods are:
  - Reviewing deliverables through mechanisms such as self review, peer review, and structured inspections;
  - (2) Assessing deliverables to determine their level of compliance with quality standards; and
  - (3) Using a variety of system representations, such as flowcharting, to raise the visibility of what and where quality problems might occur.
- d. The project manager must perform Quality Control by gathering and analyzing project results regularly to determine compliance with standards and develop corrective actions if necessary.

# **FAM 644 QUALITY ASSURANCE**

(CT:IM-81; 02-13-2007)

a. Quality Assurance (QA) is a central element in projects, as defined in

- Managing State Projects (MSP), the Project Management Body of Knowledge (PMBOK), and the Capability Maturity Model Integration (CMMI).
- b. QA is a planned and systematic set of activities to ensure that variances in processes are clearly identified and assessed, as well as continuously improving processes to meet the stated standards of the stakeholders.
- c. A QA plan must be developed for every project.
- d. Quality Assurance processes provide:
  - An independent project review of the processes in use at key project checkpoints;
  - (2) Identification of process non-compliance early in the project; and
  - (3) A conduit for continuous process improvement.
- e. The different Quality Assurance methods and techniques that can be utilized depending on the specific Quality Assurance activity are:
  - (1) Process Analysis, including root cause analysis to determine the underlying cause that led to a problem and developing corrective actions for similar problems;
  - (2) Reviews: An independent evaluation of an activity or process to assess compliance with the project plan or to examine products or processes against quality factors through the use of checklists, interviews, and meetings; and
  - (3) Audits: An independent examination of a work product or process to determine compliance with specifications, standards, contractual agreements, or other pre-established criteria.

#### 5 FAM 645 THROUGH 649 UNASSIGNED