7.0 SOFTWARE CONFIGURATION MANAGEMENT PROCESS

This section discusses the objectives and activities of the software configuration management (SCM) process. The SCM process is applied as defined by the software planning process (see 4) and the Software Configuration Management Plan (see 11.4). Outputs of the SCM process are recorded in Software Configuration Management Records (see 11.18) or in other software life cycle data.

The SCM process, working in cooperation with the other software life cycle processes, assists in:

a. Providing a defined and controlled configuration of the software throughout the software life cycle.

b. Providing the ability to consistently replicate the Executable Object Code and Parameter Data Item Files, if any, for software manufacture or to regenerate it in case of a need for investigation or modification.

c. Providing control of process inputs and outputs during the software life cycle that ensures consistency and repeatability of process activities.

d. Providing a known point for review, assessing status, and change control by control of configuration items and the establishment of baselines.

e. Providing controls that ensure problems receive attention and changes are recorded, approved, and implemented.

f. Providing evidence of approval of the software by control of the outputs of the software life cycle processes.

g. Assessing the software product compliance with requirements.

h. Ensuring that secure physical archiving, recovery, and control are maintained for the configuration items.

7.1 Software Configuration Management Process Objectives

The SCM process objectives are:

a. Each configuration item and its successive versions are labeled unambiguously so that a basis is established for the control and reference of configuration items.

b. Baselines are defined for further software life cycle process activity and allow reference to, control of, and traceability between, configuration items.

c. The problem reporting process records process non-compliance with software plans and standards, records deficiencies of outputs of software life cycle processes, records anomalous behavior of software products, and ensures resolution of these problems.

d. Change control provides for recording, evaluation, resolution, and approval of changes throughout the software life cycle.