

# CARLTON FORGE WORKS

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CODE	SUBJECT	REVISION DATE:
16	SOFTWARE QUALITY ASSURANCE	01/30/05
<b>REVISIONS:</b>  01/30/05: Revised to incorporate customer software quality requirements. 03/17/97: REMOVED REQUIREMENT FOR WRITTEN CFW APPROVAL.		

Subcontractor's software quality assurance system shall be based upon current customer and government specifications. Compliance will be verified via Carlton quality systems audit.

The subcontractor shall have a system for software control process requirements and is responsible for defining and documenting the process, maintaining records, approvals, and providing applicable objective evidence. Objective evidence must be maintained for requirements definition, validation testing (release test), approvals, \*coding guidelines (as applicable for the type of software used i.e. naming conventions, comments, etc.), revision control, and traceability. The following guidelines apply.

- a) Define the purpose and function of the software and how software requirements are initiated, documented, and approved.
- b) Identify naming convention, modification, and comments (coding) guidelines. Documentation and approval is required for a release test.
- c) Define the process, documentation and approvals used to ensure requirements are met. Ensure software cannot be modified without authorizations.
- d) Define the process documentation and approvals required for release to use. Provide objective evidence that the software performs its required function prior to use. (Objective evidence requires recording and retaining variable data.) Inspection, review, and approval of software responsible for finished part features must be performed by someone acting in an acknowledged product integrity role. Part specific software used to verify quantitative values requires an independent method of validation, and correlation of the two sets of results. (Acceptable correlation requires the difference to be within 10% of the tolerance for each characteristic. Differences greater than 10% but not exceeding 25% can be acceptable with documented justification. Differences greater than 25% are not acceptable).
- e) Define the process and approvals required to control software and related documentation, including revisions and identification for traceability purposes.
- f) Define the process used to approve/accept software into various libraries, control access and provide for backup and recovery. Master versions must be located in a secure location..
- g) Identify the method for storage, handling and release of software to the user.
- h) Define the process for identifying problems, analysis for problem cause, implementation and verification of corrective action.