



## Section 6 : QUALITY ASSURANCE CLAUSES / CQAR

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### 619. First-Piece Inspection (2/21/00).

- (a) To ensure process capability prior to production, a first-piece inspection requirement is imposed. This requirement does not relieve Seller from verifying that all goods meet contractual requirements. In the case of numerical control (NC) operations, every effort shall be made to fully qualify NC software prior to production use. When software on complex parts cannot be fully qualified prior to use, cutter path simulation software and/or substitute material shall be employed to minimize nonconformances in the production lot.
- (b) The first piece machined or formed will be inspected (all machined/formed characteristics) for acceptance to the design by Seller, prior to fabricating the remainder of the lot deliverable under this contract. The inspection results will be documented (inspection point on the traveler) and maintained with the lot records by Seller. Seller is not required to record actual measurements; this data is required to satisfy First Article Inspection requirements.
- (c) If Seller utilizes a process to fabricate multiple pieces at the same time on the same machine as in the case of a multiple spindle machine, the first-piece inspection will include units from each spindle machined at that time. If Seller uses multiple machines, one piece from each machine will be inspected.
- (d) If the first piece(s) is nonconforming, Seller will make the necessary adjustments and fabricate another first-piece part. Seller shall continue this first-piece process until an acceptable first-piece part is fabricated. Seller shall proof its process sufficiently prior to production to ensure minimal nonconformances. Evidence of this proofing must be maintained as required in the second paragraph of this section.
- (e) If the design involves multiple operations (e.g., machining, heat treating, forming), first-piece inspection will be required following machining and forming operations.
- (f) All non-deliverable software used to produce or test production items shall be placed under internal configuration control and used only for production.