Acceptance Processes Including Software

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How is Software Acceptance Different?

Procurement of Items (not software):

- May be accepted in accordance with NQA-1 Requirement 7 from a supplier implementing NQA-1
- May be accepted in accordance with NQA-1 Requirement 7 from a supplier meeting purchaser specified technical and quality requirements
- May be accepted in accordance with NQA-1 Part II Subpart 2.14, commercial grade dedication

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Take-aways

- NQA-1 Part II Subpart 2.7 Section 302 requires "Subpart 2.14, Quality Assurance Requirements for Commercial Grade Items and Services, shall be applied to acquired software that has not been previously approved under a program consistent with Part I of this Standard.."
- Software may only be procured from an NQA-1 supplier or via CGD whereas items (not SW) may be procured as described in EPRI 5652 Appendix F Rev. 1
- While Subpart 2.14 is required, section 302 (a), (b), and (c) provide a "shortcut" on how the software is to be accepted.



Case Study

- Example:
 - ASME Section III Division 5 analysis software from the NRC.
 - Developed by Argonne National Laboratories
 - NQA-1 Part I not applied
 - Distributed, not sold, by the NRC
 - Does it require CGD?

- Questions?
- Back-up Slides



CGD Process Flow: Purchaser Overseeing CGD



Turn Over to
Operations / Start-up &

Commissioning





















Design Control Process Design Process



Design Inputs

EQ Requirements

Design Criteria such as:

Safety-Function
System Requirements

Engineering Procurement Specification Development Process Design Output

Technical Specification's including CC's







Develop/Issue RFP









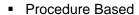


Review Supplier CGD

Release/Package(s)

Review Supplier CGD Procedures





Build to Print Drawings Commercial Grade Dedication Process











Review/Resolve Supplier Non-

Develop MR Change Docs

Engineering





















CGD Process Flow: Purchaser Performing CGD









CGD

Tech

Eval and

Accept

Plan







Procurement

Documents:



























Method 2

Acceptance. Commercial Grade

Survey



Review/Resolve Supplier Non-

Develop MR Change Docs

Engineering































Commercial Grade Dedication Process for Dedicating Entity

- Detailed process Engineering, Procurement Functions
- Procedure Based
- Barriers to ensure requirements are identified and met
- Defined roles and responsibilities for multi-functional groups





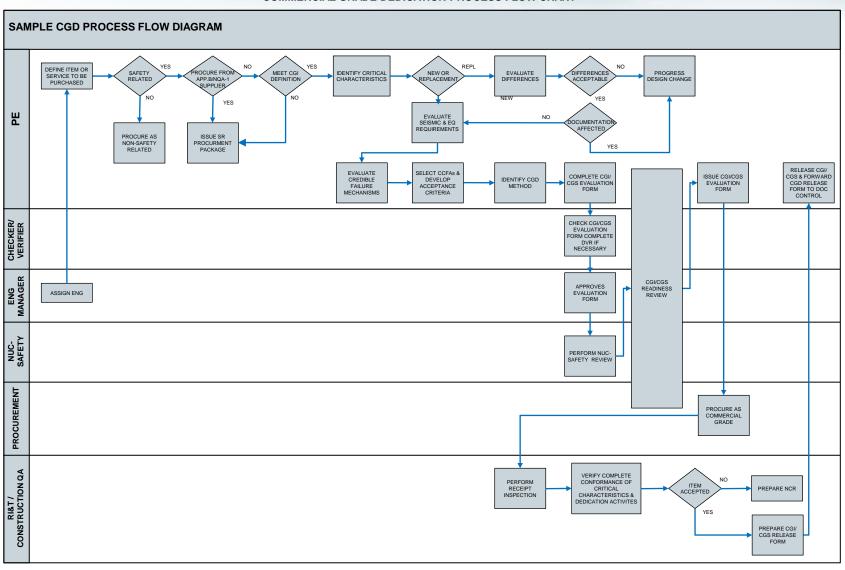








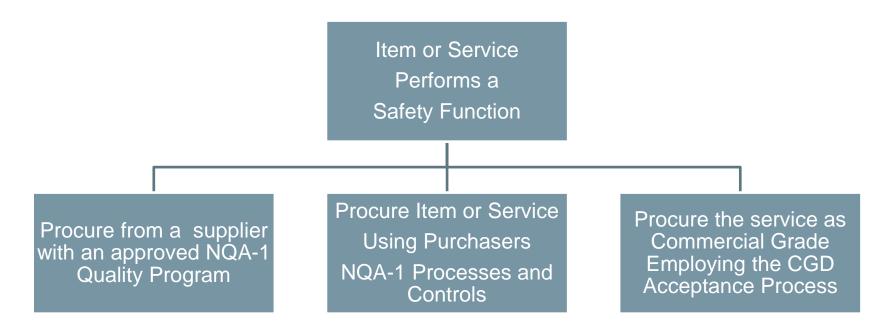
COMMERCIAL GRADE DEDICATION PROCESS FLOW CHART





Procuring Safety Class/ Significant Items & Services

Several options exist for procuring SS/SC items and services



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BEST PRACTICES

- Ensure design is complete prior to beginning the CGD process.
- Clearly define safety and non-safety items in design output documents such as drawings, P&ID's, SDD's and other design media for new designs and existing designs where possible.
- Define efficient processes for sub-part classification where existing design out-put documents do not differentiate safety and non-safety items in design output documents
- Employ procurement acceptances processes that allow the engineer to apply acceptance rigor commensurate with item importance and risk.
- Don't let the QA pedigree requirements drive you to compromises in engineering. Work with QA specialists to find a way to buy the equipment the design requires.

