



Waste Treatment Plant Project

Commercial Grade Dedication

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URS



Overview of Commercial Grade Dedication

- What is the purpose of commercial grade dedication?
 - Commercial grade dedication is performed to establish reasonable assurance that a commercial item or service will perform its intended safety function
- How is commercial grade dedication performed?
 - Commercial grade dedication is performed by creating a technical evaluation of an item or service. From the technical evaluation critical characteristics and acceptance criteria are established. Then objective evidence through testing, source verification, or other methods are used to establish reasonable assurance that the item or service will perform its intended safety function
- Why is Engineering Procurement Construction (EPC) different for commercial grade dedication?
 - In an EPC environment the design is not always finalized and the item is often unique, i.e., not a standard production item

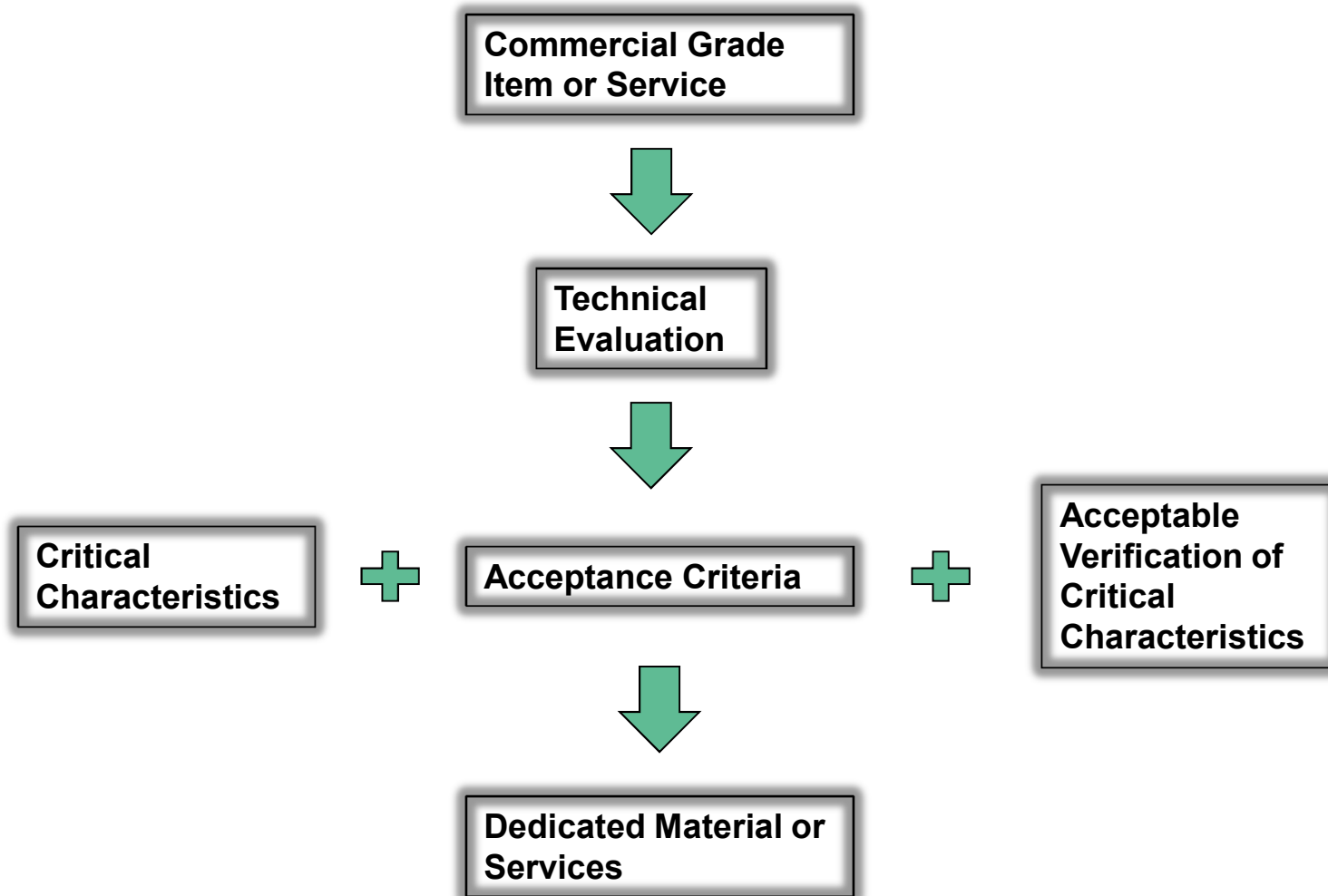


Overview of Commercial Grade Dedication Cont.

- Why is dedication necessary?
 - There are three ways that an NQA-1 supplier can procure a required item from a sub-supplier
 1. Buy the item directly from an ASME NQA-1 qualified sub-supplier who has been audited and approved by the supplier
 2. Buy the item directly from a sub-supplier who has an ASME Boiler and Pressure Vessel Code, Section III, Subsection NCA, Article NCA-3800 Material Organization Quality System Certificate (QSC), or from an Article NCA-4000 N certificate holder for the items, in accordance with the guidance included on the Q Datasheet for Quality Assurance Program Requirements or Quality Assurance Program Specification, as applicable to the associated purchase order
 3. Buy the item from a sub-supplier who is not implementing an ASME NQA-1 program and perform **commercial grade dedication** on the item



Overview of Commercial Grade Dedication





Bechtel Commercial Grade Dedication (BCGD) vs. Vendor CGD (VCGD)

■ BCGD

- Bechtel CGD refers to Bechtel being responsible for writing, evaluating and developing critical characteristics and acceptance criteria
- BCGD is performed for items and services when the supplier is not responsible for the design or is not an approved NQA-1 supplier
- Common items associated with BCGD are supplier surveys, supplier surveillances, requirements for document reviews, sub-tier supplier interactions, hold points during normal production processes



Bechtel Commercial Grade Dedication (BCGD) vs Vendor CGD (VCGD) cont.

- VCGD
 - Vendor CGD refers to the supplier being responsible for producing the technical evaluation and associated critical characteristics and acceptance criteria under an approved NQA-1 quality program
 - VCGD is performed when the supplier has design responsibility
 - All VCGD documents will be sent to Bechtel for review and status coding before work will be allowed to continue (procedures, plans and reports)



Requirements of 24590-WTP-3PS-G000-T0019 Rev. 1

- Supplier is responsible for flowing down all requirements to sub-suppliers performing dedication
- Dedication plans are required to be submitted and code statused by Bechtel for suppliers and sub-suppliers performing dedication
- Supplier is responsible for providing a technical evaluation when design scope is included
- Technical evaluations document the process for determining critical characteristics and acceptance criteria for each item requiring CGD
- Technical evaluations consider the design of the item, design conditions, Quality (Q) function, and failure modes/mechanisms
- For items comprised of multiple components, the technical evaluations will evaluate and document what components support the Q function and those that are Commercial (CM)



Technical Evaluations

- Technical evaluations include the following
 - Item identification
 - Item design functions
 - Item Q function
 - Credible failure mechanisms
 - Critical characteristic determination
 - Acceptance criteria including tolerances (referencing specs, drawings, etc.)
 - Dedication method
 - Sampling plans and justifications



Documentation of Results

- All results from inspections, testing, and source inspections should be clearly documented in a results package
- Inspection and testing data should include measuring equipment and calibration, tolerances, and measured values
- Source inspection reports should include objective evidence of what was witnessed (including procedures used), when it was witnessed, and what material was being watched (including heat numbers, serial numbers, etc.)
- All inspections and testing should follow the sampling plans identified in the commercial grade dedication plans



Lessons Learned

- Any engineering judgment used in creating a technical evaluation needs to be justified
- Ensure that flow-downs from Bechtel to suppliers make it all the way to sub-suppliers and documentation provided by sub-suppliers is provided for code status
- Continual communication is paramount for successful execution
- Sample size selection needs to be supported with justification
- Compliance with all contracted terms is the expectation
- Documentation needs to be thorough and accurate
- **Open lines of communication need to be present throughout the dedication process**



QUESTIONS?

Email or Text

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