PROCUREMENT DOCUMENT CONTROL , CONTROL OF PURCHASED ITEMS & SERVICES

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Requirement 4

PROCUREMENT DOCUMENT CONTROL

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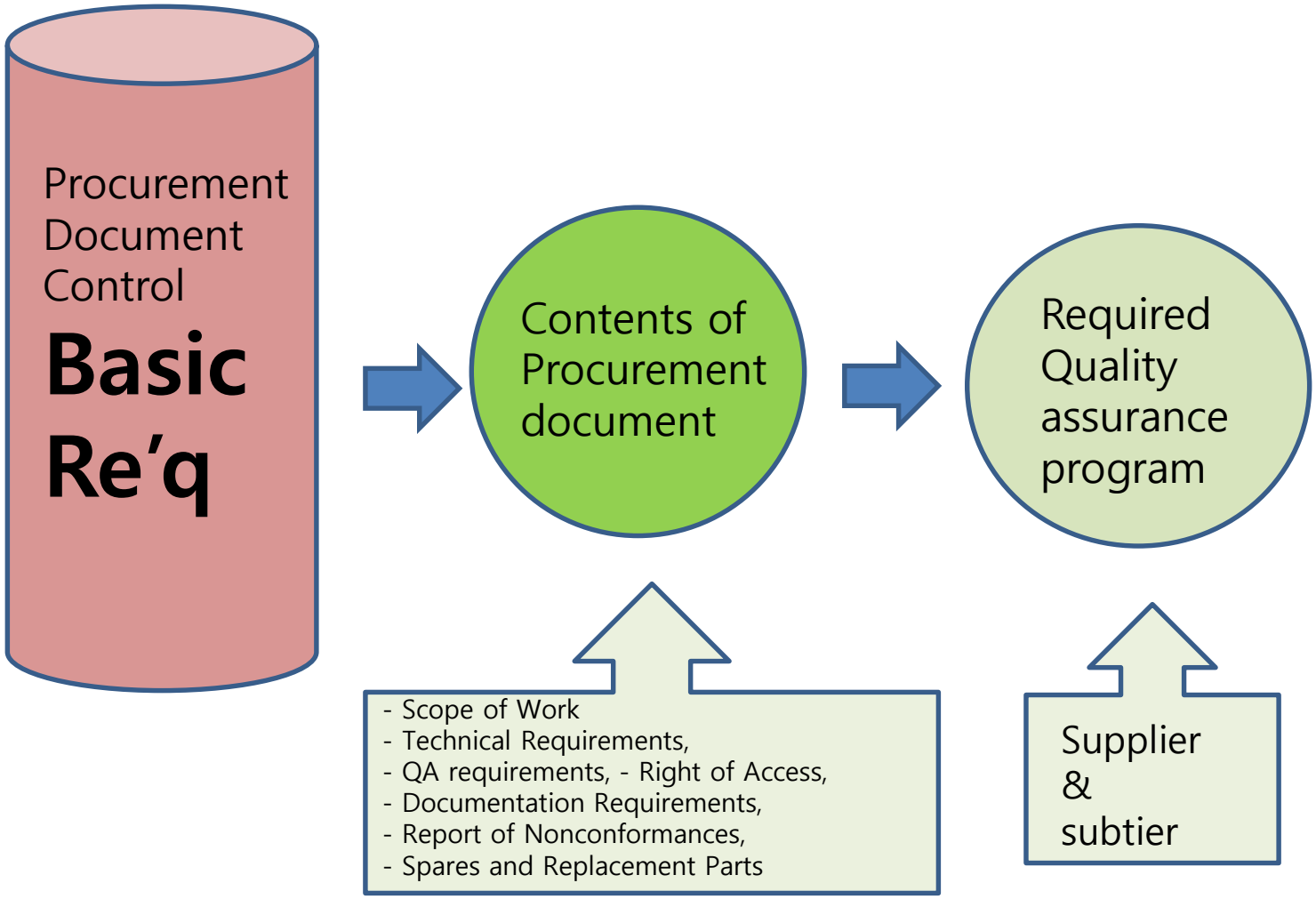
Procurement
Document
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Basic
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Contents of
Procurement
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Required
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- Scope of Work
- Technical Requirements,
- QA requirements, - Right of Access,
- Documentation Requirements,
- Report of Nonconformances,
- Spares and Replacement Parts
Supplier
&
subtier

4. PROCUREMENT DOCUMENT CONTROL

Area of Review

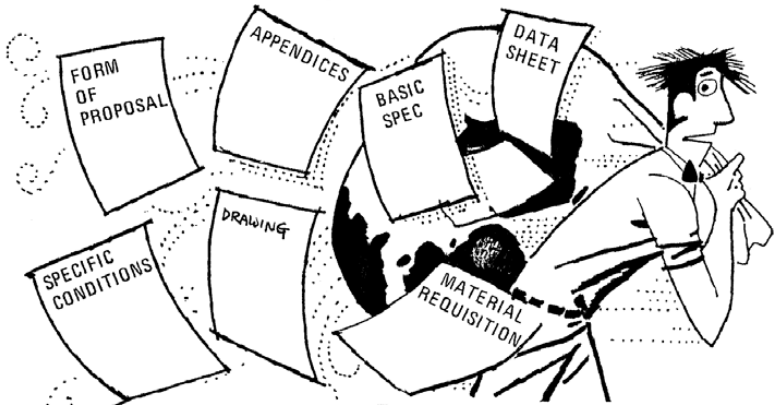
- The procurement document appropriately describes technical standards, design criteria and QA requirements for the purchase of materials, components or services.

- The procurement document is used to define requirements for purchase as follows:
  - Purchase requisitions, purchase orders,
  - Drawings, contracts, specifications, or instructions
  - Code & Standard, Procedure, Test, Inspection & Acceptance criteria

4. PROCUREMENT DOCUMENT CONTROL

Procurement Specification(PS) → Purchase Order Request → Purchase Order (PO)

* Design Spec.
  * Drawing, * Instruction
    * Code & Standard
      * Reg. Guide
        * QA program requirements



II. REQUIREMENTS

4. PROCUREMENT DOCUMENT CONTROL

100 BASIC REQUIREMENT

Design bases and other requirements necessary included or referenced in documents for procurement of items and services.

- Items : appurtenance, assembly, component, equipment, material, module, part, structure, subassembly, subsystem, system, unit
- Services : Performance of activities such as design, fabrication, inspection, non-destructive exam., repair & replacement, or installation.

Procurement documents shall require suppliers to have a QA program consistent with applicable requirements.

4. PROCUREMENT DOCUMENT CONTROL

200 CONTENT OF THE PROCUREMENT DOCUMENTS

Procurement documents must include the following, as deemed necessary by the purchaser:

- Scope of Work
- Technical Requirements
- QA Program Requirements
- Right of Access
- Documentation Requirements
- Packaging and Shipping Requirement
- Nonconformances
- Spare and Replacement Parts

4. PROCUREMENT DOCUMENT CONTROL

201 Scope of Work

Description of the tasks to be performed and information on the overall project by supplier.

- Main Items
- Aux. Items
- Services
- Prototype(required for design change products or new products

4. PROCUREMENT DOCUMENT CONTROL

202 Technical Requirements

Technical requirements describe the items or services to be furnished

- Specific Drawings
- Specifications, codes, standards, and regulations
- Procedures and instructions
- Test, inspection, and acceptance criteria

4. PROCUREMENT DOCUMENT CONTROL

203 Quality Assurance Program Requirements

Quality assurance program requirements:

- Include identification of QA Manual, rev/date.
- Consistent with importance and/or complexity of the item require supplier to pass down to subtier suppliers

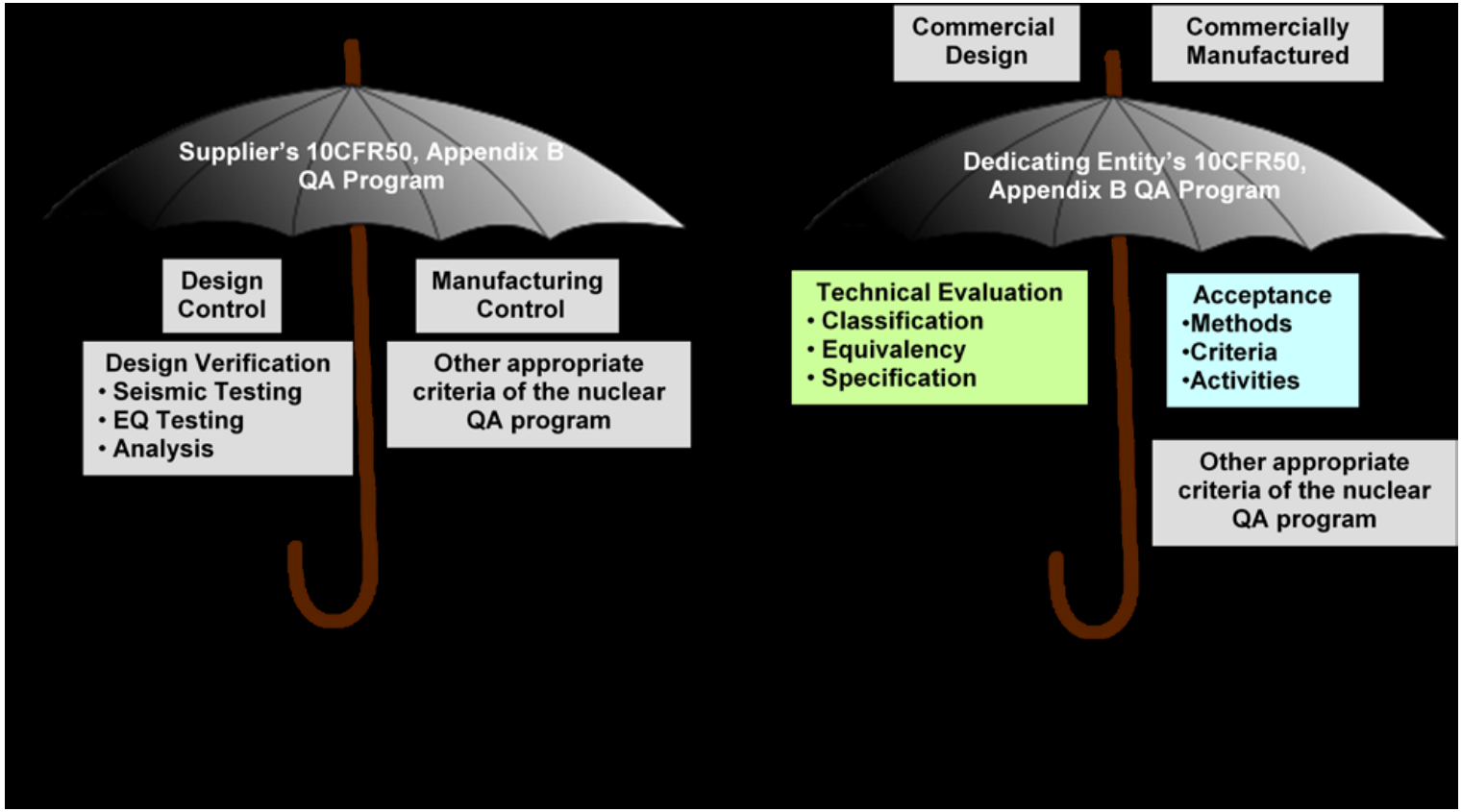
Critical for suppliers with both nuclear and *commercial programs where supplier QA system requirements are being used.

Backgrounding of introducing the technology certification System * COMMERCIAL GRADE ITEMS

- Deterioration of nuclear power plant trust
  ('79 : TMI, '86 : Chernobyl)
- Decrease of new nuclear power plants
- Slowdown of nuclear industry growth
- Interruption of Safety parts production

* Commercial grade items or services not procured under a nuclear quality program

Overview of Commercial Grade Item



Controlling a basic component under KEPIC QAP/ 10CFR50, App. B(left), versus commercial grade item dedication(right)

4. PROCUREMENT DOCUMENT CONTROL

204 Right of Access

The procurement documents shall provide for access to the Supplier's and subtier Supplier's facilities and records for surveillance, inspection, or audit by the Purchaser, its designated representative, and others authorized by the Purchaser.

- Surveillance : the act of monitoring or observing to verify whether an item or activity conforms to specified requirement.

- Foreign manufactures(High-tech or Defense industry company) tend to minimize right to access and audits their facilities or records.

4. PROCUREMENT DOCUMENT CONTROL

205 Documentation Requirements

The procurement documents shall identify the documentation required to be submitted for information, review, or approval by the Purchaser.

The time of submittal shall also be established.

When the Purchaser requires the Supplier to maintain specific records(QVDL: Quality Verification Documents List), the retention times and disposition requirements shall be prescribed.

4. PROCUREMENT DOCUMENT CONTROL

QVDL: Quality Verification Documents List

- Certificate of Conformance
- Material Test Report
- Inspection & Test Report(=Quality Plan)
  - NDE Reports
  - Heat Treatment Reports
  - Wall Thickness Verification Reports
- SDDR(Supplier Deviation Disposition Report)
- NCR(Non-conforming Report)
- CAR(Corrective Action Report)

4. PROCUREMENT DOCUMENT CONTROL

206 Nonconformances

The procurement documents shall specify the Purchaser's requirements for the Supplier's reporting of nonconformances.

4. PROCUREMENT DOCUMENT CONTROL

207 Spare and Replacement Parts

The procurement documents shall specify the Supplier's requirements to identify spare and replacement parts or assemblies and the related data required for ordering these parts or assemblies.

(Life time of Spare and Replacement Parts)

4. PROCUREMENT DOCUMENT CONTROL

300 PROCUREMENT DOCUMENT REVIEW

A review of the procurement documents and changes thereto, shall be made and documented prior to award of contract to assure that documents transmitted to the prospective Supplier(s) include appropriate provisions to assure that items or services will meet the specified requirements.

Technical or quality assurance program changes made as a result of bid evaluations or negotiations shall be incorporated into the procurement documents prior to their issuance to the Supplier.

4. PROCUREMENT DOCUMENT CONTROL

300 PROCUREMENT DOCUMENT REVIEW

Procurement documents and revisions reviewed and approved by personnel who have access to pertinent information and an understanding of the requirements.

- Engineering Part
- Quality Assurance Part
- Production(repair & replacement) Part
- Job qualification Program

4. PROCUREMENT DOCUMENT CONTROL

400 PROCUREMENT DOCUMENT CHANGES

Procurement document changes affecting the technical or quality assurance program requirements shall be subject to the same level of control as utilized in the preparation of the original documents.

III. Verification Practice

- Content of Procurement Documents
  - Scope of Work
  - Technical Requirements
  - Quality Assurance Program Requirements
  - Right of Access
  - Documentation Requirements
  - Reporting of non-conformance
  - Spares and Replacement Parts
- Procurement Document Review
- Procurement Document Changes

IV. Case of Deviation

- Improper implementation of procurement documents:

In QA manual (QMP-1006) of TRC, Valve supplier,

chapter 4 Purchasing does not describe the requirements for the content of procurement documents (QA records preparation, reporting of non-conformance, right of access for inspection personnel).

- Inconsistency in purchase review requirements:

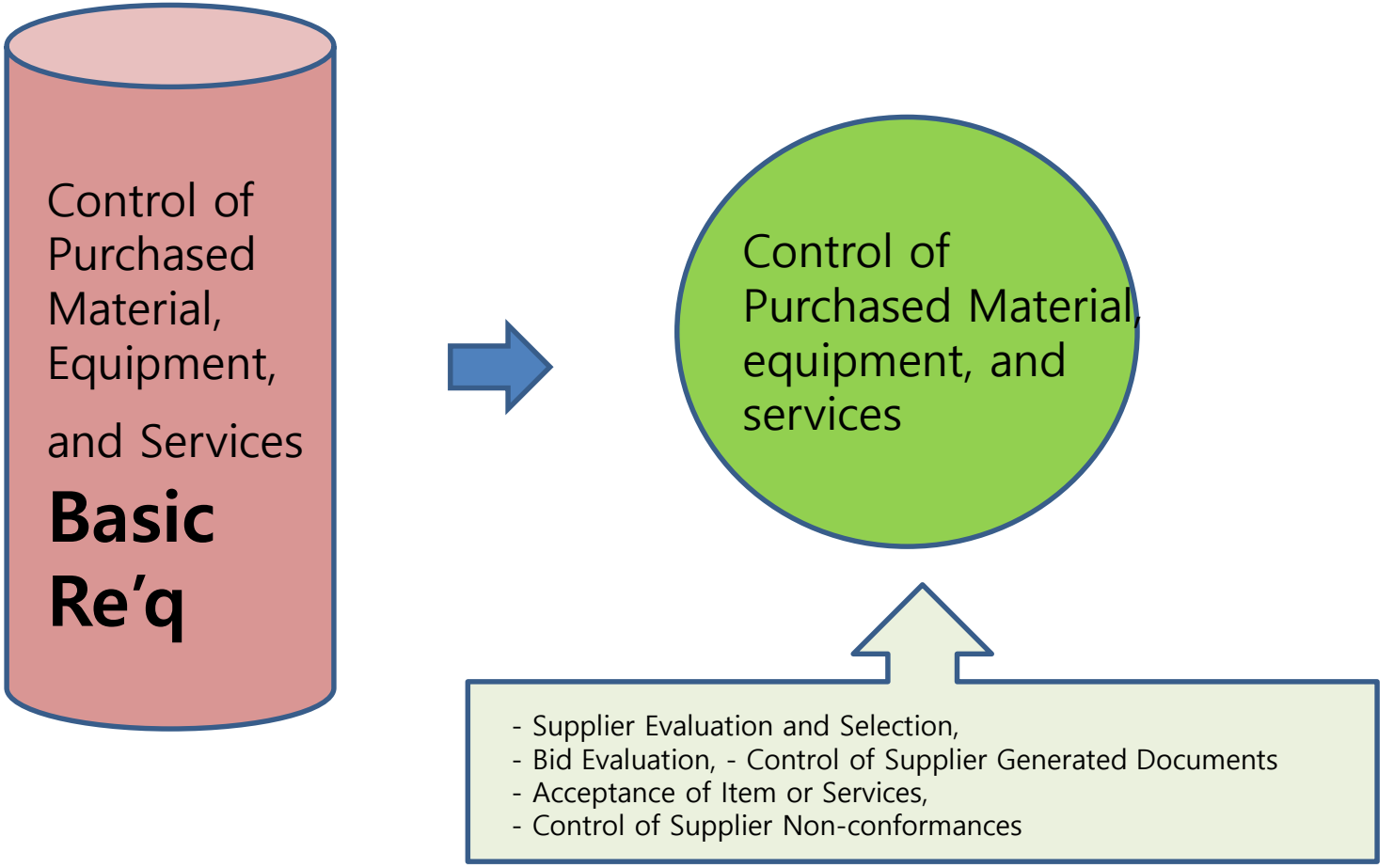
The PNI purchase order control procedure QP-006 defines requirements for requisitions and purchase orders.

The PO form contains a field for the approval of the QA Manager, this field is used inconsistently, i.e. on some occasions it is signed by the QA Manager and on others it indicates N/A.

Requirement 7

CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

I. Area of Review


Control of Purchased Material, Equipment,
and Services
Basic Re'q
Control of Purchased Material, equipment, and services
- Supplier Evaluation and Selection,
- Bid Evaluation, - Control of Supplier Generated Documents
- Acceptance of Item or Services,
- Control of Supplier Non-conformances

Area of Review

Establish a method consistent with the requirements of purchase documents when purchasing materials and performing service activities

- Source(supplier) evaluation and selection
- Bid evaluation
- Procurement planning
  - Identification of procurement methods
  - Organizational responsibilities
- Acceptance of items or services
  - Review CMTR, C of C/ Source Verification
  - Receiving inspection/ Post-installation Testing
- Control of supplier non-conformances
  - Establishment and documentation of disposition methods(cf. rework, repair, or use-as-is) for the nonconforming items and services

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

Two Types of Products

Nuclear Grade

- Item or Service procured under a nuclear quality program
  - 10 CFR 50 Appendix B
  - ASME NQA-1(**KEPIC QAP-1)**
  - ASME Section III

Commercial Grade

- Not procured under a nuclear quality program
  - Para 700
  - Part II, Subpart 2.14

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

100 BASIC REQUIREMENT

- The procurement of items and services shall be controlled to assure conformance with specified requirements.
- Such control shall provide for the following as appropriate:
  1) Supplier evaluation and selection,
  2) evaluation of objective evidence of quality furnished by the Supplier,
  3) Supplier inspection, audit, and examination of items or services upon delivery or completion.

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

200 SUPPLIER EVALUATION AND SELECTION

- Three Methods to Approve Suppliers

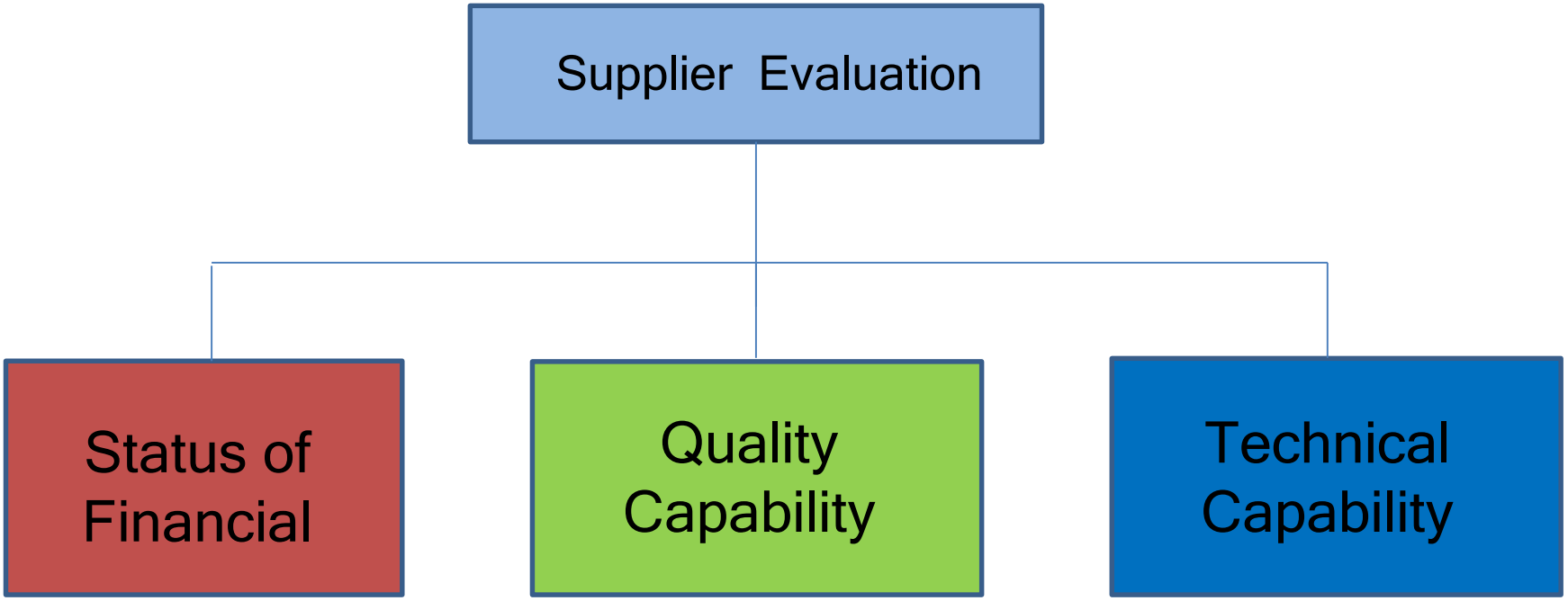
Purchaser shall evaluate the supplier's capability to meet procurement requirements.
Suppliers can be evaluated and approved by one or more of the following:

(a) History of providing product that performs satisfactorily in actual use.

(b) Current quality records supported by documented qualitative and quantitative information that can be objectively evaluated.

(c) Technical and quality capability determined by direct evaluation of the supplier's quality assurance program.

Supplier Evaluation



7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

300 BID EVALUATION

Bid evaluation must include an assessment of the supplier's capability to meet technical and quality assurance requirements.

- "Pre-award Survey"

Resolution and commitments must or obtain commitments to resolve unacceptable technical and quality assurance conditions resulting from the bid evaluation.

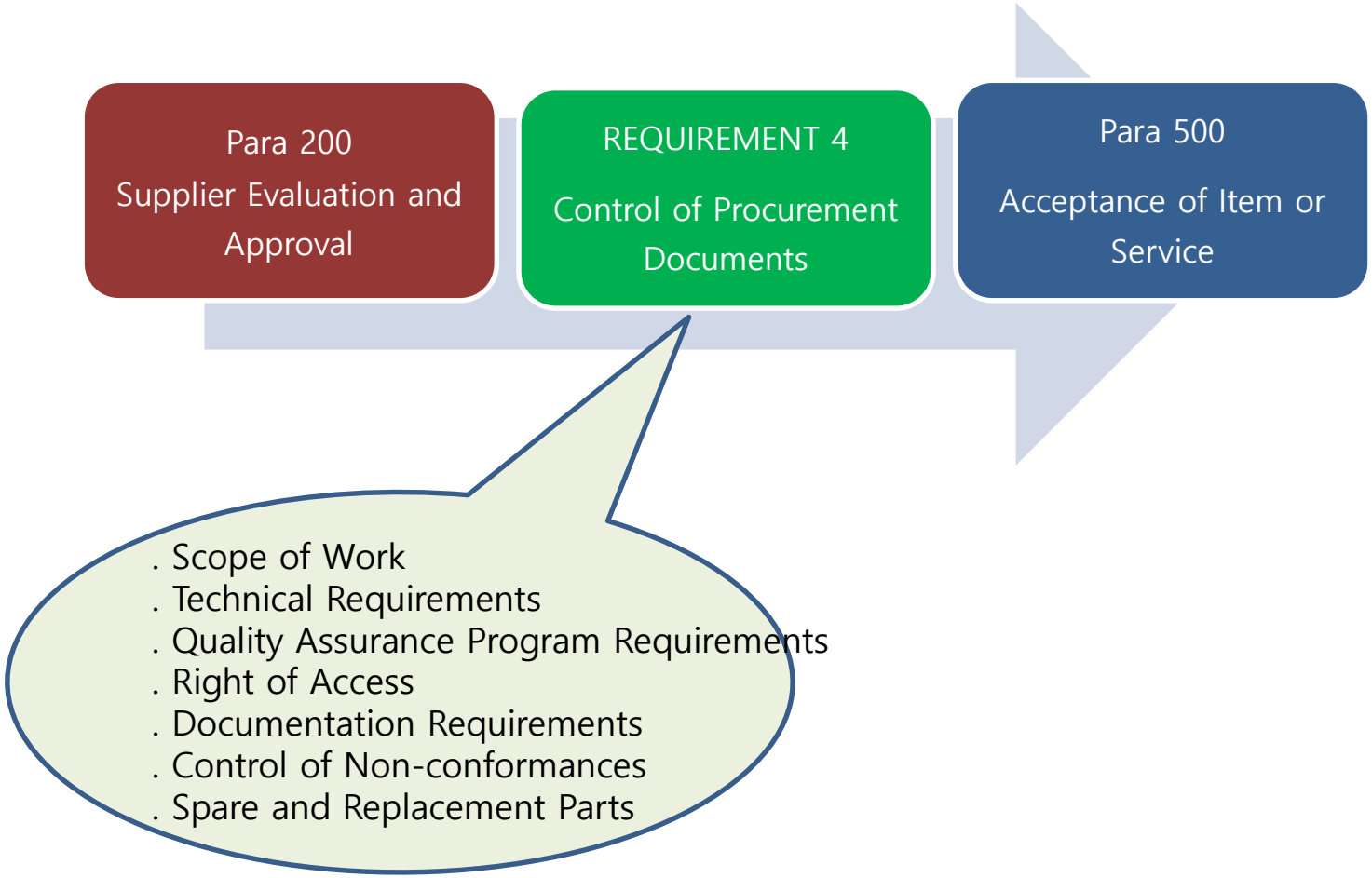
7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

400 CONTROL OF SUPPLIER-GENERATED DO CUMENTS

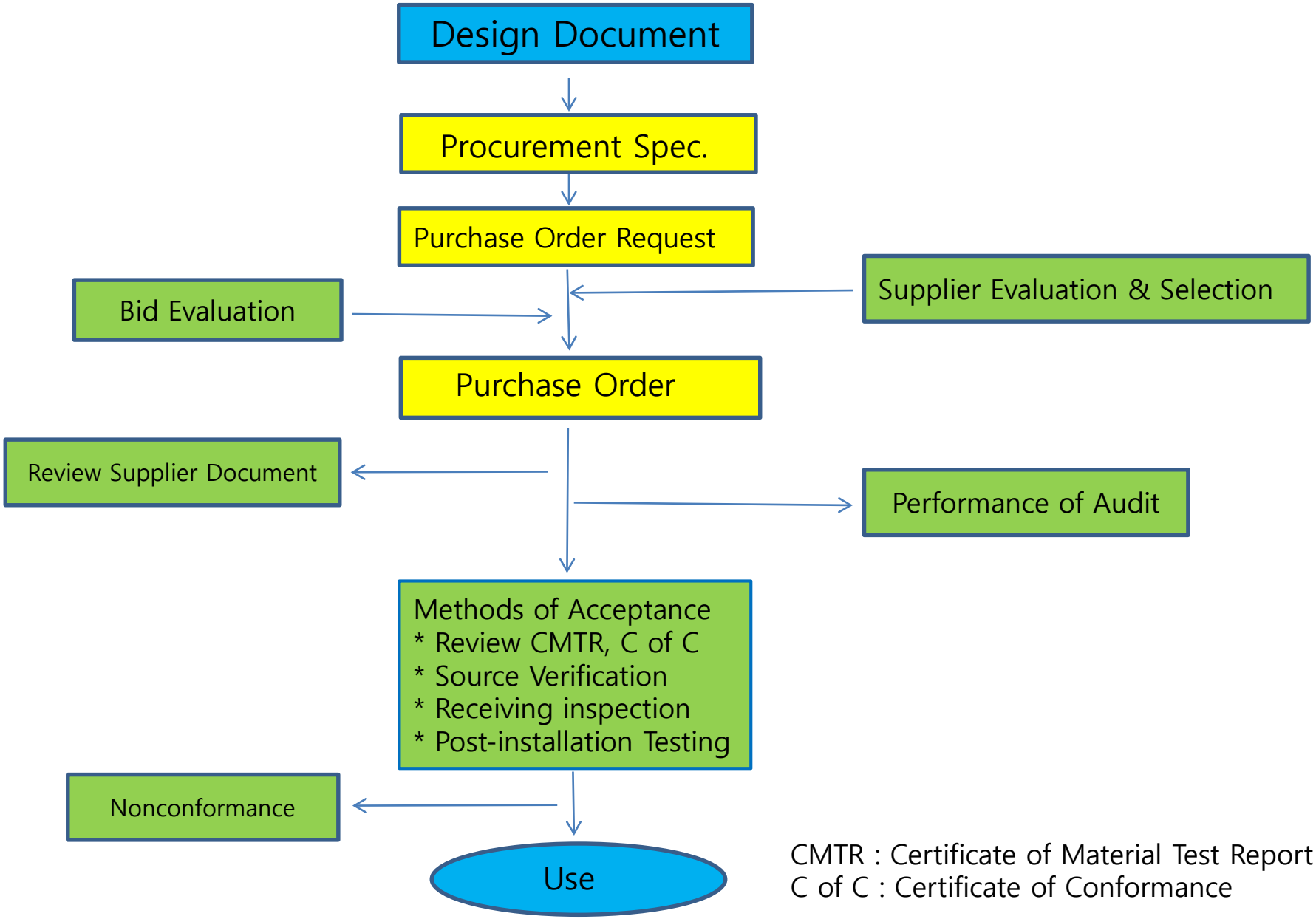
Supplier-generated documents must be reviewed and controlled as part of the purchasing process.

Controls include the acquisition, processing, and recorded evaluation of the quality assurance, technical, inspection, and test documentation or data against acceptance criteria.

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES



Procurement Flow



CMTR : Certificate of Material Test Report
C of C : Certificate of Conformance

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

500 ACCEPTANCE OF ITEM OR SERVICE

501 General

Supplier shall verify that the item or service being furnished complies with the procurement requirements.

Where required by code, regulation, or contract requi rement, documentary evidence that items conform to procurement requirement shall be available at the nuclear facility site prior to installation or use.

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

502 Methods of Acceptance

Purchaser methods used to accept an item and s ervice from a supplier shall be

- Certificate of Conformance
- Source verification
- Receiving inspection
- Post-installation test at the facility site
- or combination of these methods

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

503 Certificate of Conformance (C of C)

The Certificate must:

(a) Positively identify the purchased material or equipment, such as the purchased order number.

(b) Identify the procurement requirements such as codes, stan dards, and other specifications. It may be accomplished by including a list of requirements, copy of the purchase orde r and the procurement specifications or drawings include any approved changes, waivers, or deviations

(c) Identify requirements not been met, together with an expl anation and the means of resolving the non-conformances.

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

(d) Certificates shall be signed by a person who is responsible for this quality assurance function and whose function and position are described in the purchase's or supplier's QA program.

(e) The certification system, including the procedures for filling out a certificate, and review and approval of the certificates, shall be described in the purchase's or supplier's QA program.

(f) The validity of supplier certificate and effectiveness of the certificate system must be verified such as

- Audits of the Supplier
- Inspection or test of the items

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

504 Source Verification

- When source verification is used, it shall be performed at interv als(1~3years) consistent with the importance and complexity of th e item or service.
- And shall include monitoring, witnessing, or observing selected activities
- Source verification shall be implemented in accordance with plans to perform inspections, examinations, or tests at predetermined points.
- Upon purchaser acceptance of source verification, documented evidence of acceptance shall be furnished to the receiving destina tion of the item, to the purchaser, and to the supplier.

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

505 Receiving Inspection

- Items inspected to verify conformance requirements
- Taking into account source
  - Verification and audit activities
  - Supplier performance.
- Receiving inspection verifies such features as
  - (a) configuration
  - (b) identification
  - (c) dimensional,
  - (d) physical, and other characteristics
  - (e) no shipping damage
  - (f) cleanliness

- Coordinated with a review of supplier documentation when furnished prior to receiving inspection.

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

506 Post-installation Testing

Post-installation test requirements and acceptance documentation shall be mutually established by the Purchaser and Supplier.

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

507 Acceptance of Services Only

In cases involving procurement of services only, such as

- Third-party inspection
- Engineering and Consulting services
- Auditing
- Installation
- Repair
- Overhaul
- Maintenance work

The purchaser shall accept the services by one or more of these methods:

(a) Technical verification of data produced
(b) Surveillance and/or audit of the activity
(c) Review of objective evidence for conformance to requirements

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

600 CONTROL OF SUPPLIER NONCONFORMANCES

- Controls shall include an evaluation of nonconforming items

- Information must address the following:
  - Technical or material requirement that is violated
  - The purchasing requirement that is violated
  - Recommended disposition (e.g., use-as-is or repair)
  - Technical justification or information on correction by repair or rework

- Purchasing documents must provide direction on notification

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

600 CONTROL OF SUPPLIER NONCONFORMANCES

- Final documentation must include:
  - Purchaser disposition of Supplier recommendation
  - Verification of the implementation of the disposition
  - Maintenance of records on nonconformance

* QSDR(Quality Surveillance Deficiency Report) : Supplier discrepancy discovered by the factory inspector delegated by the purchaser.

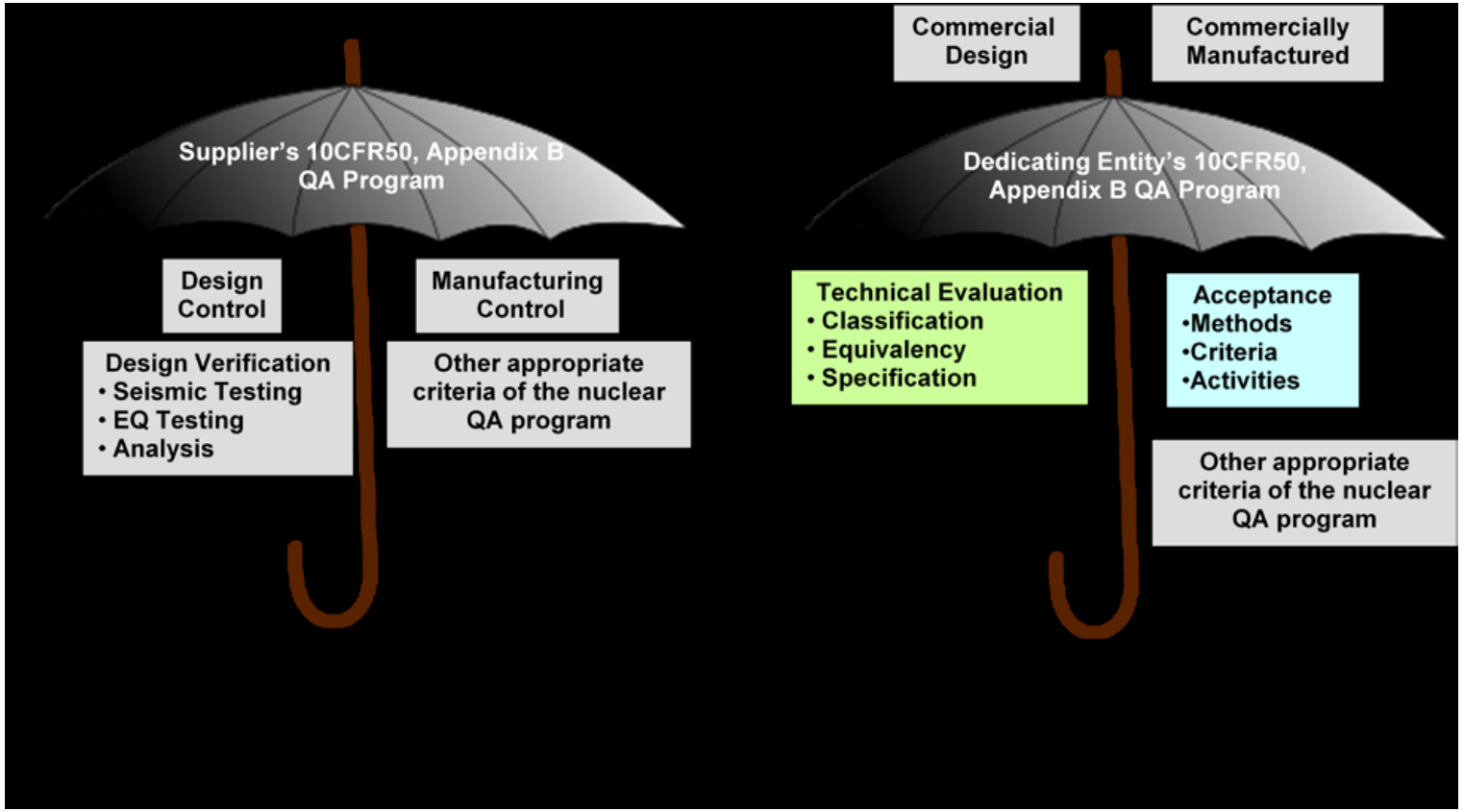
7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

700 COMMERCIAL GRADE ITEMS AND SERVICES

When commercial grade items or services are utilized, the requirements of QAP-2, 2.14, Quality Assurance Requirements for Commercial Grade Items and Services.

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

Overview of Commercial Grade Dedication



Controlling a basic component under KEPIC QAP/ 10CFR50, App. B(left),
versus commercial grade item dedication(right)

7. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

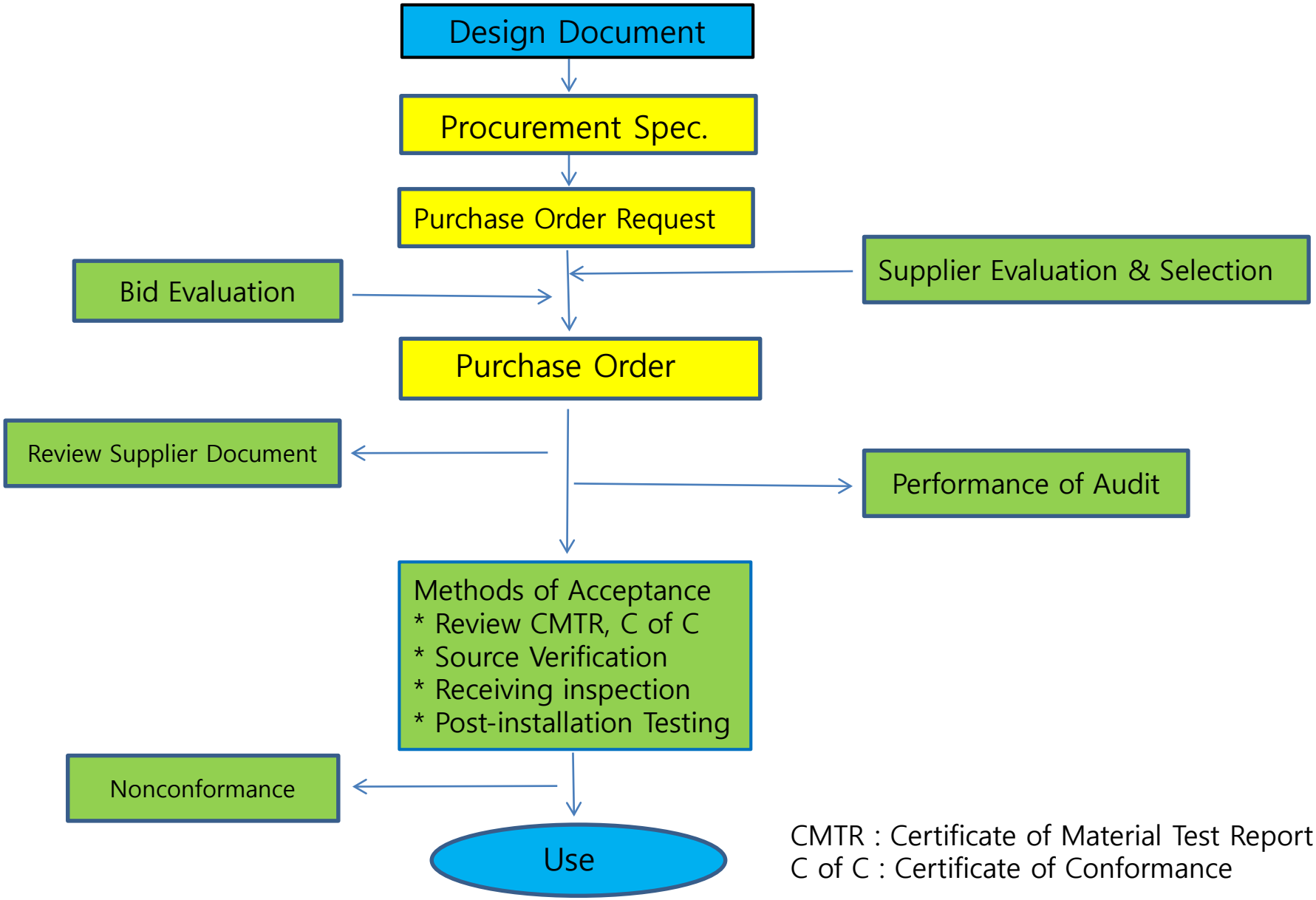
800 Records

Records shall be established and maintained to indicate the performance of the following function:

a) Supplier evaluation and selection
b) Acceptance of items or services
c) Supplier non-conformances to procurement document requirements, including evaluation and disposition.

III. Verification Practice

Procurement Flow



CMTR : Certificate of Material Test Report
C of C : Certificate of Conformance

IV. Case of Deviation

- Cases of Deviation

Improper implementation of procurement documents :

Flowserve pump Co. purchase order RLLA21769, QL1 was issued to Mackson Inc. AVL indicated that the Flowserve survey was past due date.

P.O was issued 3-11-09, survey was due 2-1-09.

But Flowserve pump Co. didn't survey due date actually.

Always we keep watching our Atomic Power

Thank You

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