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PM <u>See PCF</u> / _____	
ARM <u>R. [Signature] for WCE, 12/24/91</u>	

1.0 INTRODUCTION

1.1 Purpose

This Site Standard Practice (SSP) establishes the administrative and quality controls used by the Nuclear Engineering (NE) Procurement Engineering Group (PEG) for identifying and establishing the quality and technical requirements necessary to support the procurement of permanent plant equipment, materials, and non-personal services at Watts Bar Nuclear Plant (WBN). This SSP establishes the process for:

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This SSP supersedes EAI-4.01 and incorporates STD-10.5 which superseded NEP-4.1.

1.2 Applicability

This SSP applies to WBN personnel involved in specifying technical and quality requirements for procurement (i.e., reorders, bulk material, DCN/ECN materials, previous procurement evaluations, contract technical reviews, technical disposition with relation to procurement documents, etc.).

**2.0 DETAILS****WBN Engineering Manager**

Responsible for all technical aspects of material procurement and material specification of technical and quality requirements. Monitors the engineering support functions to maintain configuration control and to improve material control and efficiency in the procurement process. Responsible for engineering personnel training.

**Lead Procurement Engineering Group Manager**

Responsible for the Procurement Engineering Group Program implementation and management. Approves all documents produced within the discipline.

**2.1 Procurement Initiation****2.1.1 Engineering Initiated Request****NOTE**

*The source of obtaining material for Engineering are various but all require an engineering evaluation, review and approval with respect to the items original design basis. If the material is not available from the Nuclear Stores Warehouse, then a purchase requisition (REQN), request for delivery (RD) or a transfer request (TR) are appropriate and this procedure applies. However, if the material is in stock, then this material may be obtained (procedure SSP-10.04) provided the design basis is verified prior to the specification and identification of its use on an engineering output document. Non-approved lists, printouts, or system data bases (i.e., TIICs listed in a MAMS data base printout) should not be used during the design, verification and approval cycles.<sup>5</sup>*

**Project Engineering Lead Engineers****NOTE**

*It is essential that both the engineer and vendor have a clear understanding of the complete assembly and configuration when establishing requirements for assemblies of complicated safety related equipment. A requirement should be specified on PR to provide an assembly drawing which indicates the location of all components supplied with the assembly (including equipment supplied by a third party or subvendors).<sup>6</sup>*

## 2.1.1 Engineering Initiated Request (continued)

- A. Initiate a procurement request (PR), form PEG 10606 (see instructions and sample form in Appendix K), when a need for permanent plant materials or equipment is identified during the course of original design or preparation of a design change (obtain a PR number from the PEG clerk). The PR is also used to obtain spare and replacement parts and non-personal services. The design basis contained in the PR receive design verification before it is APPROVED (all design interfaces for seismic, EQ, and design configuration must be verified). Requests shall be forwarded to the project PEG.

Other organizations may process a PR by completing the form, routing to NE for design basis verification (signature block 8 on second page of PR), and forward to the project PEG.

## NOTE

*Care should be taken when issuing a PR for HVAC equipment or components. It is important that the design engineer specify that on HVAC equipment or components that are welded during the fabrication process, that welding related information be made available for source inspection. Vendor specified welds shall be detailed on drawings and provided to TVA at the time of source inspection. Vendor specified welds shall be detailed on drawings and provided to TVA at the time of source inspection for use by the TVA inspection agency. Under sized welds have been a problem for vendor supplied HVAC equipment and components. Any special design requirements, drawing requirements or inspection requirements are to be noted as necessary on the PR.<sup>8</sup>*

- B. Obtain all required interface reviews. For example, if Block 6 of Form PEG 10606 is marked with 10CFR50.49 applies - YES. Verify PR includes Standard Specification (SS) E18.10.01 Attachment 1 Safety Function and Environmental Condition sheet. (If the location specified is in a harsh environment zone, refer to EAI-7.05).
- C. Include or reference all information used as design basis required for procurement (for example, see documents listed in 2.3.2.B). If the PEG engineer determines that the Environmental Conditions sheet is required but is not included with the PR, the PEG engineer shall contact the design engineer and obtain E18.10.01 Attachment 1.
- D. Consider (as QA record) NE procurement requests being returned to the appropriate NE discipline for additional information, corrections; Independent Reviewer (IR), design verification, or revision. Process the interface between PEG and other engineering organization as follows:

## 2.1.1 Engineering Initiated Request (continued)

## PEG

1. Identify the PR is being returned on the Procurement Request Form, PEG 10606, and state the reason for return in the remarks section (second part of form PEG 10606, front page). The PEG engineer assigned shall sign the procurement request.
2. Forward PR through the tracking system to the discipline or project manager for approval and sign off.

## NE Discipline

3. Document this review (IR and supervisor) by signing and dating the PR form in the space below the signature of the PEG Engineer assigned.
4. Return the PR to PEG to be included in the RIMS'd PEG package.

## NOTE

*All interfacing issues of the PR must be resolved for PEG procurement process to proceed.*

## PEG

5. Complete the response half for acknowledgment and submit copies back to the NE discipline and as indicated in the "CC" distribution section of the PR Acknowledgment (copy sent to RIMS). File the original procurement request in the PEG design-verified files. As a minimum include a copy to the Modifications Manager for inclusion into the modification workplan.
- E. Complete the PEG package including appropriate appendices and determine the best method to obtain material or respond to the PEG 10606 subject request.
- F. Ensure NE Procurement Requests that are evaluated as QA level 0 have a one time abbreviated PEG procurement package, or complete a Procurement Master Data Sheet and include the NE Procurement Request input document.

QA level 0 items identified in Appendix M (QA 0 exemption list) do not require submittal to PEG at any time.

## NOTE

*Material required by Modifications not included in the design output documents must be considered as a revision to the design materials listing, and requires the same level of review and approval as the issued design output document. Exceptions to the above are for obtaining materials that are design acceptable by an approved G-Spec/design output or expendable materials.*

## 2.1.2 Plant Initiated Request

## Materials and Procurement

- A. Receive and review plant-originated purchase requests and stock reorders in accordance with SSP-10.01.
- B. Forward requests for permanent plant materials and equipment to PEG to establish technical and quality requirements unless an existing engineering-APPROVED PROCUREMENT SPECIFICATION as discussed in Section 2.2 can be used.

## NOTE

*Requests for refurbishment, rebuilds, or modification of previously installed SAFETY-RELATED ITEMS must be accompanied with original procurement traceability, maintenance records, and service life information, (i.e., a 50.49 ITEM sent for refurbishment had five years of service life. It therefore must have all service life components replaced or have a maximum remaining service life five years less than the EQ binder allowable).*

## 2.1.3 Evaluation Requests

## PEG

- A. Receive procurement requests or requests for engineering evaluation (i.e., credit 575N, re-assignment of material end use, inspection reports, PEG 10606, previous procurement evaluations, etc.) for permanent plant equipment and requests for spare and replacement ITEMS and associated services including recommended stock reorders (RSR or PI-005) for stocked ITEMS.
- B. Verify data provided on requests is complete and contains necessary information related to seismic/structural, environmental, ASME, and other qualification requirements.
- C. Return to Materials and Procurement any procurement request with insufficient information or any non-Engineering request which has been determined and previously documented to be QA Level 0 and does not require determination of additional technical and quality assurance requirements by Engineering (refer to Subsection 2.1.1 Step F). Some complex procurements for non-QA ITEMS such as turbine generator use may require engineering specialist review.

## 2.2 Review of Existing Design Documents Containing Technical and Quality Requirements For Procurement

### 2.2.1 Existing Procurement Specification

#### Materials and Procurement

A. If an existing PROCUREMENT SPECIFICATION for a TVA Item Identification Code (TIIC) has been APPROVED by Site Engineering for reorder and has not expired, then use the existing specification without submittal to Site Engineering. TIIC technical descriptions including QA level, noun name and long description, primary manufacturer, and primary part number are APPROVED by PEG. Examples of existing APPROVED PROCUREMENT SPECIFICATIONS include:

1. Procurement specifications approved by engineering processed in accordance with SSP-10.01.
2. Engineering standard PROCUREMENT SPECIFICATIONS applicable to a defined set of inventory TIICs.
3. Specifications provided by Engineering used for previously procured ITEMS that are referenced to specific TIIC(s) and that received no quality and technical (external note/attachments) changes during the procurement or receipt process.
4. Procurement Master Data Sheets developed by this SSP.

### 2.2.2 Existing Engineering Design Output Documents

#### PEG

- A. Review existing design documents to determine if they contain the necessary technical and quality assurance requirements for procurement.<sup>3</sup>
- B. Review existing design documents which contain requirements suitable for the intended application. Examples of existing documents which may be suitable include but are not limited to:
1. Automated PROCUREMENT SPECIFICATIONS.
  2. Pre-Engineered Item Specifications (PEISs).
  3. Standard PROCUREMENT SPECIFICATIONS.
  4. Component data sheets.
  5. Procurement specifications (e.g., PF Specs)
  6. Previous Engineering prepared procurement contracts.
  7. Procurement request (PR).
  8. Standard Specifications.
  9. PEG packages.

**2.2.2 Existing Engineering Design Output Documents (continued)**

- C. Reference any design documents with acceptable technical and quality assurance requirements in the Engineering Procurement Package. (At minimum, the PEG cover page or PMDS is required.)
- D. Establish and issue technical and quality assurance requirements for procurement according to Section 2.3 if:
  - 1. Existing design documents do not contain suitable technical and quality requirements, or
  - 2. There is reason to question the appropriateness of existing specifications.

**2.3 Technical Evaluation for Establishing Technical and Quality Assurance Requirements**

## PEG

- A. Use the following generic process for conducting technical evaluations and analyses necessary to establish appropriate technical and quality requirements for procurement. While the requirements of this section are primarily for spare and replacement ITEMS, they can be applied equally as well to the procurement of new ITEMS (i.e., design changes/modification ITEMS/changes to technical and quality specifications) or previously procured materials.
- B. Perform and document technical evaluations and analyses in sufficient detail to permit verifications and audits. Appendixes A through G provide guidance in the documentation of the results. (Forms identified are to provide a consistent approach and process, latest revision level and exact layout of forms are not a requirement when the intent of this SSP is satisfied.)
- C. Ensure all applicable requirements such as seismic/structural, 10CFR50.49, ASME Code of Record, testing, inspection, documentation, quality program, regulatory (i.e., 10CFR21, etc.), and other requirements addressed in this standard are included in the procurement document. 1, 3

## NOTE

*The EQ Binders shall be the source document to establish the EQ COMPONENT qualified configuration.*

If a procurement involves whole devices specifically qualified in the EQ Binders to NUREG 0588, Category II, then the replacement device should be upgraded to Category I (or 10CFR50.49) requirements. This would normally involve a DCN and NE-EQ interface. (Reference Reg Guide 1.89 and EAI-7.05.)

## 2.2.2 Existing Engineering Design Output Documents (continued)

- D. If an ITEM is without suitable existing controlled design documents, then determine the technical and quality requirements with consideration to:

**NOTE** *Appropriate engineering discipline should be contacted if additional support is required.*

1. Design basis and functional requirements (SAFETY-RELATED or non-SAFETY-RELATED).<sup>1</sup>
2. "Like-for-like" or equivalent evaluation as necessary.
3. Critical characteristics for COMMERCIAL GRADE ITEMS (CGI).
4. ACCEPTANCE CRITERIA and METHOD(s).
5. Vendor and ITEM performance, as appropriate. Nuclear Plant Reliability Data System (NPRDS) is the recommended source.
6. Input from Engineering Discipline Sections, as appropriate.
7. Q-List.
8. 10CFR50.49 List and EQ Binders/Mechanical Environmental Qualification Binders.

## 2.3.1 Establish Safety Classification For Procurement

**NOTE** *EPRI NP-6895 provides additional details and guidance for safety classification.*

**PEG**

- A. Perform a functional based safety classification evaluation, if necessary, to determine ITEM or HOST EQUIPMENT Safety Related (SR) function(s), interfaces and credible failure modes that may adversely affect a SAFETY-RELATED function. Only SR functions credited in the accident analysis or specified in licensing commitments need be considered. If item or host functions are assumed safety related, then the classification evaluation is not required.
- B. Determine system level safety functions by reviewing documents such as Q-list, system design criteria, the Final Safety Analysis Report (FSAR), and drawings, as required to identify the system SAFETY-RELATED functions. Systems determined to perform SAFETY-RELATED functions are considered SR. NonSAFETY-RELATED functions may be identified if desired.
- C. If more than one method of accomplishing a SAFETY-RELATED activity is available, and the particular accident analysis only credited a single method, then, for mitigation of that particular accident, only the credited method of accomplishing the safety function need be considered (i.e., if two devices provide the same function but one is for train A the other for train B, then only one train can be considered for accomplishing the safety function).

## 2.3.1 Establish Safety Classification For Procurement (continued)

- D. A formal Failure Modes and Effects Analysis (FMEA) or Probabilistic Risk Analysis (PRA) are not required, although the thought process may be beneficial in the safety classification. The process shall be sufficiently documented to provide adequate verification of assumptions and/or conclusions. Accident analysis provided in the FSAR and PRA calculations may be useful information sources for evaluating credible failures. Item reliability/maintenance history (NPRDS) may be used if verifiable. In all cases, compliance with licensing basis commitments must be ensured.
- E. Identify the following for components (whole devices):
1. Component (whole devices) SAFETY-RELATED function(s) that support the system safety function(s) (for example, refer to EPRI NP-6895 Appendix B).
  2. Any CREDIBLE FAILURE MECHANISMS that could prevent the accomplishment of a SR function.
  3. A SAFETY-RELATED classification (QA Level I or II) if a SR function or CREDIBLE FAILURE MECHANISM that would prevent/impede a SAFETY-RELATED function identified.
- F. Identify item functions and determine the following for parts within a SR or quality related host component:
1. A SAFETY-RELATED classification (e.g., QA Level I, QA Level II if a COMMERCIAL GRADE ITEM is to be dedicated as part of a BASIC COMPONENT after receipt) if the part is required for the component to carry out its SAFETY-RELATED functions (primary or secondary safety functions).
  2. A SAFETY-RELATED classification (e.g., QA Level I, QA Level II if a COMMERCIAL GRADE ITEM is to be dedicated as part of a BASIC COMPONENT after receipt) if the part's CREDIBLE FAILURE MECHANISM(s) affect the components SAFETY-RELATED functions.
- G. Identify ITEMS having no SAFETY-RELATED function and no credible failure adversely affecting a SAFETY-RELATED (SR) function as non-SAFETY-RELATED (NSR).
- H. Evaluate NSR ITEMS (whole devices or piece parts) for inclusion within a quality related (QR) program (seismic Category 1(L), Radwaste, Fire Protection, etc.). NSR ITEMS determined to fall within a QR program are also considered quality related (e.g., QA Level III). SR ITEMS are automatically within the quality-related scope and are considered SAFETY-RELATED (QA I or II).

## 2.3.2 Determination of Critical Characteristics

## NOTE

*Determination of CRITICAL CHARACTERISTICS for design is not always necessary. Adequate definition of the design basis in the PROCUREMENT SPECIFICATION accompanied by suitable ACCEPTANCE METHODS may be used in lieu of specifying CRITICAL CHARACTERISTICS for design. Procurements where a vendor has an APPROVED Appendix B QA program and 10CFR Part 21 is accepted by the vendor and the critical characteristics are verified by the vendor documentation would also not require specifying critical characteristics. In instances where the procurement is being placed with a third party qualifier, the critical characteristics must be specified by TVA or by the vendors qualification plan approved by TVA. NSR ITEMS do not have critical characteristics if its credible failure does not adversely affect any safety function performance.*

## PEG

- A. Use Corporate Engineering Design Guides/Standards and NP-5652 for critical characteristics of commonly used safety related replacement ITEMS, when applicable.
- B. Determine CRITICAL CHARACTERISTICS for commercial grade replacement ITEMS to be used in SAFETY-RELATED applications based upon the ITEM's safety function requirements. Use TVA design basis documentation such as follows to determine safety function requirements:
  1. Drawings.
  2. Original PROCUREMENT SPECIFICATIONS or procurement requests.
  3. APPROVED portions of vendor manuals.
  4. Design specifications.
  5. SEISMIC/STRUCTURAL and ENVIRONMENTAL QUALIFICATION requirements.
  6. Standard specifications.
  7. General Engineering Specifications (formerly General Construction Specifications).
  8. Design Criteria.
- C. Identify CRITICAL CHARACTERISTICS FOR ACCEPTANCE (e.g., form, fit, function, materials, performance requirements) for commercial grade ITEM which, once verified, provide reasonable assurance that the ITEM received is the ITEM specified and that it will perform its SAFETY-RELATED function.

## 2.3.3 Replacement Item EQUIVALENCY EVALUATION/ENGINEERING EVALUATION

PEG

- A. Perform and document EQUIVALENCY EVALUATION to ensure that spare and replacement ITEMS are purchased to requirements equivalent to those specified for the original equipment (original design basis) or as specified by properly reviewed and APPROVED qualification documents.<sup>1</sup> Ensure ASME Code, EQ Manuals, etc., requirements are considered in the evaluation.

## NOTE:

*NE discipline review (i.e., seismic, EQ, ELECT, MECH, CIVIL, etc.) is not required for like for like replacements (example, same part number, model number, and no vendor changes) or alternate replacements where design output documents are not impacted and the engineering evaluation is performed by PEG.*

- B. If it is determined while performing the evaluation process that the replacement ITEM impacts the ITEM's design basis or necessitates a change to applicable design documentation, then initiate appropriate actions within the design change process (i.e., DCN, etc.).
- C. Use Equivalency Evaluation Form (sample in Appendix C) for situations such as the following which may not affect the ITEM's fit, form, function, or manufacturing process/materials:
1. Items having part/model number differences due to vendor administrative changes such as adding zeros to complete computer fields.
  2. Verifiably identical ITEMS procured from alternate or subtier suppliers.
  3. Items manufactured to industry standards or specifications, but procured from an alternate supplier.
- D. Review previously accepted technical and quality requirements and vendor documentation to determine if objective evidence exists that the replacement ITEM is identical (reasonable assurance of same fit, form, function, manufacturing process and materials)<sup>1</sup> to the ITEM originally supplied. If differences are identified, an engineering evaluation is performed.
- E. For alternate items, perform an engineering evaluation (sample form in Appendix B) to determine the effects the differences have on the ITEMS function(s), failure mechanism(s)/modes, CRITICAL CHARACTERISTICS, SEISMIC/STRUCTURAL and ENVIRONMENTAL QUALIFICATIONS, and ACCEPTANCE CRITERIA.

**2.3.3 Replacement Item EQUIVALENCY EVALUATION/ENGINEERING EVALUATION  
(continued)**

- F. Justify any differences while demonstrating that the ability to perform SAFETY-RELATED functions has not been degraded below the analyzed design. Ensure no design documents are impacted.
- G. Select another replacement ITEM should the differences have an adverse effect on the ITEM's design safety functions. Appropriate NE discipline review is required when design output documents controlled by the discipline have been, could be, impacted. Consider the DCN process.

**2.3.4 Commercial Grade Determination and DEDICATION**

**NOTE 1** *In considering COMMERCIAL GRADE ITEMS for use as a BASIC COMPONENT, care must be exercised on product lines that are manufactured in dual commercial and nuclear lines. DEDICATION of such commercial products will require extensive justification and is therefore discouraged.*

**NOTE 2** *Many COMMERCIAL GRADE ITEMS may be procured from 10CFR50, Appendix B suppliers. Care should be taken to consider the supplier DEDICATION program.*

**PEG**

- A. Identify SAFETY-RELATED ITEMS which will be procured as COMMERCIAL GRADE ITEMS.
- B. Confirm that ITEMS satisfy the definition of a COMMERCIAL GRADE ITEM. Otherwise, process procurement of the ITEM as QA level I.

**NOTE** *EPRI NP-5652 provides more detail and guidance on the selection of CRITICAL CHARACTERISTICS and ACCEPTANCE METHODS. When using ACCEPTANCE METHOD 4 of NP-5652, care should be taken to ensure that vendor performance is documented and verifiable, such as laboratory test results over a 10-year period for cases where vendor performance is the only method for dedication.*

- C. Select those critical characteristics which must be verified to provide reasonable assurance that the ITEM specified is the ITEM received, and that host equipment safety functions are not compromised.
- D. Base the selection of critical characteristics on the results obtained in Subsections 2.3.1, 2.3.2 and 2.3.3, needed tolerances, and suitable ACCEPTANCE METHODS.
- E. Determine ACCEPTANCE CRITERIA for selected critical characteristics.

## 2.3.4 Commercial Grade Determination and DEDICATION (continued)

- F. Select the ACCEPTANCE METHOD(s) to be used in validating the selected critical characteristics considering factors such as:
1. Selected critical characteristics
  2. Available suppliers and supplier information
  3. Quality history of product, vendor/manufacturer
  4. Degree of standardization
  5. Item complexity
  6. Item cost
  7. ACCEPTANCE METHOD cost
  8. Documentation requirements
  9. Plant documented experience (i.e., maintenance trend reports, etc.)
  10. Use of special pre-installation tests to preclude substandard or fraudulent ITEMS.
  11. Inspections

## 2.4 Specifying Technical and Quality Requirements

## NOTE

*The preparation of an adequate PROCUREMENT SPECIFICATION combined with appropriate ACCEPTANCE METHODS demonstrates acceptability of the ITEM for the intended application. EPRI NP-5638 provides more detail on preparation of PROCUREMENT SPECIFICATIONS (e.g., technical requirements specifications) and may be used for guidance.*

## NOTE

*Requirements of SSP-6.09 evaluation of suitability of replacement ITEMS when replacement is not due to failure or premature end of life is also satisfied through this technical review.*

## PEG

- A. Specify technical and quality-related requirements, when possible, for QA level 0 inventory materials by completing the Procurement Master Data Sheet (PMDS) or abbreviated PEG package. (PMDSs for other QA levels, refer to Section 2.7.)
- B. Consider ITEM(s) to be used in BASIC COMPONENT application which were originally under a prime supplier's (e.g., NSSS's or A/E's which include applicable program requirements per ANSI N45.2) scope of supply to be ordered from the prime supplier with some procurement control responsibilities delegated to the prime supplier. For ITEMS which are BASIC COMPONENTS, PEG need not list specific requirements if proper reference is made back to the prime supplier's original requirements.<sup>3</sup>

## 2.4 Specifying Technical and Quality Requirements (continued)

NOTE 1 *This is allowed only if the ITEM(s) required are to be provided in accordance with the supplier's original QA and technical requirements and the ITEM(s) are equal to or better than the ORIGINAL ITEM(s). If changes in the QA and/or technical requirements are needed, those changes must be reflected in the Engineering Procurement Package.*

NOTE 2 *Care should be taken when the prime supplier is delegated partial procurement control. Their ability to fully meet technical and quality requirements should be reviewed based on previous periodic purchases. No delegation of procurement requirement can be made if a weakness in the vendor's quality program is evident.*

- C. Require a CERTIFICATE OF CONFORMANCE (refer to ANSI N45.2.13, Section 10.2, COC) or equivalent document from the prime supplier stating the ITEM to be used as a BASIC COMPONENT is being supplied under the prime suppliers QA program and that the ITEM meets all original contract requirements or those specified in the new contract, or provide an equivalent statement (QA level I ITEMS).

NOTE *COC shall include, at a minimum, ITEM description traceable to contract number, code/standards/specifications met, APPROVED changes/waivers and attested by the responsible individual per the supplier's Quality Assurance Program.<sup>3</sup>*

- D. Include provisions for the following as they apply to the ITEM being procured.<sup>1, 2, 3</sup>

1. Scope of work.
2. Technical requirements.
3. Quality assurance program requirements.
4. Right of access.
5. Documentation requirements.
6. Nonconformance/reporting.<sup>3</sup>
7. Lower tier procurement requirements.
8. ACCEPTANCE CRITERIA and methods.

- E. In development of the PROCUREMENT SPECIFICATION and identification of potential suppliers, evaluate the supplier's quality controls, as necessary, over such areas as manufacturing, design, procurement and testing to ensure their capability to provide ITEMS/services in accordance with procurement requirements.<sup>3</sup> Such information is usually available in NQA audit reports (ASL), or vendor QA manuals on file, and any Nuclear utility shared audit reports such as from NUPIC (Nuclear Procurement Issues Committee).

1. Recommend procurement source, mailing list, or sole source as appropriate.

## 2.4 Specifying Technical and Quality Requirements (continued)

F. Develop the contents of PROCUREMENT SPECIFICATIONS considering the following sections as applicable:

## 1. Scope

Provide a statement of the scope of work to be performed by the supplier. For simple ITEMS such as most spare and replacement parts, the statement may simply include, as applicable, TIIC, manufacturer, part number, or other product description.

## 2. Technical Requirements

a. Specify or reference applicable technical requirements based on:<sup>1, 3</sup>

1. Results obtained in Section 2.3, or
2. Existing controlled design documents.
3. SEISMIC/STRUCTURAL and ENVIRONMENTAL QUALIFICATION reports

4. USNRC Regulatory Guides, Letters, Bulletins, and Information Notices.
5. Industry codes and standards (i.e., IEEE 323-1974, applicable ASME code)
6. Applicability of 10CFR50.49 and 10CFR21.
7. Standard Specification as applicable.

b. Specify marking requirements to ensure proper identification (heat number, lot number, unique serial number, or other means appropriate to the application). Identification of quality related ITEMS shall be verified and documented prior to release for fabrication, assembly, and shipping. Determination of identification requirements shall be based on the ITEM's importance to safety, quality, ASME code requirements, or potential hazards.

c. Specify calibration, cleaning, fabrication, erecting, handling, storage, packaging and shipping requirements and special process instructions.<sup>1</sup>

d. Specify codes and standards by titles and dates in such a way as to clearly set forth the applicable document and requirement <sup>1, 3</sup> (i.e., IEEE323-1974, ASME Code 1971 through Summer 1973 Addenda). Use Appendix J for ASME material upgrades.

## 2.4 Specifying Technical and Quality Requirements (continued)

e. Specify test result documents to include the following:

1. The identification of the ITEM to which it applies.
2. The identification of instructions followed in performing the test.
3. Pertinent inspection and test date.
4. Significant dates and times
5. Signature of inspector and test director.
6. Conditions encountered which were not anticipated, including identification of deviations or Conditions Adverse to Quality, and actions taken to resolve the condition.

f. Use Internal Notes in Appendix A or/and I to identify detail actions required by TVA for processing the PEG package (i.e., file maintenance to be performed, what to do with stock material, movement of material from one TIIC to another, surplus, special handling or storage, requirement for routing receipt inspection, etc.). Ensure stock levels are at least equal to re-order point. If the PEG actions causes a low inventory level, include technical and quality requirements to process a material re-order. If in-stock material verification is needed, a form similar to Appendix L may be used.

g. Specify special tagging in Appendix G for QA level I, II, or III ITEMS which must be restricted to use only in specific end use applications, or restricted for use only on specific DCN(s).

h. Identify concurrence from affected sites for multi-site TIICs where changes to the TIIC Technical Description is required (i.e., include name and telephone number of technical individual contacted on the marked copy of PI005 or MAMS screen). Any QA level changes requires a new or alternate TIIC number to be requested.

i. Identify, as practical, the most severe application host device in Appendix A in an effort to classify the ITEM to the most stringent quality assurance requirements. If not the most severe application, then ensure special tagging restricting its use.

## 2.4 Specifying Technical and Quality Requirements (continued)

## 3. Quality Requirements

- a. Determine and identify the QA program requirements, as applicable, to quality-related ITEMS and services being procured (QA I, II, III). This may require the supplier to have a documented QA program that implements the appropriate portions of 10CFR50, Appendix B, ANSI-N45.2, NCA 3800, NCA 4000, N101.4, 10CFR71, R. G. 1.36 or have an APPROVED commercial COC program. Normally QA level III (NSR) ITEMS do not require an APPROVED QA program imposed on the vendor.<sup>1, 3</sup>
- b. Require the supplier to invoke appropriate QA requirements on any subcontractors.<sup>3</sup>
- c. Include requirements for reporting nonconformances and for approving corrective actions and nonconformance dispositions.
- d. At minimum, include a TVA QC receipt inspection on all quality-related procurement ITEMS (QA I, II, or III). QC may implement a graded approach as defined by the Nuclear Quality Assurance Plan (NQAP) to satisfy this requirement.

4. ACCEPTANCE CRITERIA<sup>3</sup>

## NOTE

*ACCEPTANCE requirements (e.g., criteria and methods) need not be placed in the procurement document, but should be developed in conjunction with the PROCUREMENT SPECIFICATION. EPRI NP-5652, NP-6406, and NP-6629 provide additional detail on ACCEPTANCE requirements and may be used for guidance.*

- a. Define appropriate quantitative and qualitative ACCEPTANCE CRITERIA for verifications, inspections, and tests to reasonably determine that quality-related activities have been satisfactorily accomplished.
- b. Consider the following when specifying ACCEPTANCE CRITERIA:<sup>1, 3</sup>
  1. TVA APPROVED supplier quality program (may have an ASL number).
  2. Source and surveillance inspections.
  3. Additional receipt verification and inspection requirements and special tests including post installation testing (for CONDITIONAL ACCEPTANCE).
  4. Documentation.

5. ACCEPTANCE METHODS<sup>3</sup>

## 2.4 Specifying Technical and Quality Requirements (continued)

PEG

- a. Specify ACCEPTANCE METHODS for supplier and plant activities that provide reasonable assurance that ITEM received is the ITEM specified.
- b. Include ACCEPTANCE by receipt inspection and any combination of the following, as appropriate, based on the ITEM's degree of complexity, uniqueness, and safety classification.<sup>3</sup>
  1. Source verification. Specify special source and surveillance requirements including "hold" and "witness" points.<sup>3</sup> Specify source verification report to be included with shipment and/or procurement document (contract).
  2. Pre-installation testing inspection.<sup>4</sup>
  3. Supplier CERTIFICATE OF CONFORMANCE or other supplier's documentation.
  4. Post installation testing (use Appendix F for conditionally accepted material).<sup>4</sup>
  5. Type of receipt inspection performance (use Appendix E for QC or internal notes for NS)
  6. Plant documented ITEM experience (reference STD-6.4 or SSP-6.04)

## NOTE

*Post installation testing should also be based on vendor interface on complex ITEMS where it is difficult to verify quality characteristics. Tests are accomplished through APPROVED procedure (i.e., IMIs, workplans, MRS, etc.).<sup>4</sup>*

- c. Consider the following to preclude substandard or fraudulent ITEMS for SAFETY-RELATED applications:
  1. Use of pre-installation tests or inspections, as appropriate, consistent with the guidance of EPRI NP-6629.
  2. If the surplus market is to be used for the purchase of replacement ITEMS, establish product performance through traceability to the original equipment manufacturer or performance of special pre-installation tests or inspections.

## 2.4 Specifying Technical and Quality Requirements (continued)

6. Documentation Requirements<sup>1</sup>

- a. Identify documentation at all tiers to be prepared and/or maintained by the supplier and submitted (with shipment or when specified) to TVA for review and approval.<sup>2, 3</sup> In identifying documentation requirements, consider their validity and importance in verifying acceptability for SAFETY-RELATED service. Whenever extensive documentation (technical or QA) from the contractor or supplier is required, TVA Form 10737, Contract Document Requirements List, may be used to identify such documentation.
- b. Ensure documentation credited in ACCEPTANCE is substantiated by TVA APPROVED supplier programs capable of providing such documentation.<sup>2</sup> Required documentation may include:<sup>2</sup>
  1. Drawings, procedures, and specifications.
  2. Vendor manuals.
  3. SEISMIC/STRUCTURAL and ENVIRONMENTAL QUALIFICATION reports.
  4. Certified Material Test Reports (CMTR).
  5. Nondestructive examination (NDE) reports.
  6. Radiographic films.
  7. Personnel certifications or qualifications.
  8. Performance test reports.
  9. Certificates of Conformance/Compliance.
  10. Contracts document requirements list, if required.
  11. Shelf life or in-storage requirements.<sup>2</sup>
- c. Identify records, at all tiers, to be retained, maintained, and controlled by the supplier or contractor, and those documents and records that the suppliers and contractors shall transfer to TVA prior to installation or use of an ITEM or service as applicable.<sup>1, 3</sup>

7. Right of Access<sup>1, 2</sup>

Include provisions for right of access to the facilities and records of suppliers, contractors, and subtier suppliers and contractors for source inspection and audits.

## 2.5 Method of Procurement

PEG

- A. Recommend the appropriate method(s) of procurement defined in SSP-10.01. Specific consideration for each method is confined to the technical evaluation to assure that the purchased ITEM or service conform to the procurement contract.<sup>1</sup>

**2.5 Method of Procurement (continued)****B. Consider the following in recommending procurement methods:**

1. Materials and Procurement initial recommendation, except for ECN/DCN and NSSS procurements.
2. Item cost and availability.
3. Technical and quality requirements.<sup>1</sup>
4. Schedule requirements.
5. Indefinite Quantity Term (IQT) contract applicability.
6. Other existing contracts.

**2.5.1 Transfer Requisition Requirements****PEG**

- A. Determine that the ITEM meets the applicable requirements for the intended application. This may be performed by specifying the technical and quality requirements and verifying that the requirements are satisfied.
- B. Require the supplying organization to provide a copy of applicable procurement, maintenance, storage, and modification records if the ITEM has been previously installed or modified. Determine if any activity has degraded the qualification or ability to perform the intended function.
- C. Require previously supplied vendor documents to be readily accessible to receiving location.

**2.5.2 Request for Delivery (RD) Requirements****Site Materials and Procurement**

- A. Ensure the IQT contract and RD contain the technical and quality requirements of an Engineering APPROVED PROCUREMENT SPECIFICATION. Include additional requirements as applicable on RD.

**2.5.2 Request for Delivery (RD) Requirements (continued)**

- B. Ensure RDs issued against IQT or requirements contracts containing Engineering-APPROVED PROCUREMENT SPECIFICATIONS do not modify or change any technical and quality requirements of those specifications.

**2.5.3 Purchase Requisition Requirements****PEG**

- A. Specify the appropriate quality assurance mailing list and/or sole source recommendation for supplier as required. A mailing list is only required for quality related procurements QA I, II, III that PEG invokes a supplier quality assurance program and is on ASL. If vendor is not an ASL consider approving supplier for a specific scope based on a source audit or other vendor evaluations.
- B. Provide justification for sole source purchase when applicable.

**2.5.4 Materials Borrowed, Rented or Exchanged****Site Engineering**

- A. Consider that the supplying organization furnishes a CERTIFICATE OF CONFORMANCE (COC), for borrowed, rented, and exchanged materials for use in a SAFETY-RELATED application stating that:
  - 1. Item was procured from a qualified source.
  - 2. Item was maintained in accordance with the requirements of the supplying organization's Quality Assurance Program.
- B. Require the supplying organization to provide a copy of all applicable procurement, installation, inspection, maintenance, and modification records for TVA's review in accordance with Section 2.2.

**2.6 Engineering Procurement Package Preparation, Review, Approval and Use****PEG**

- A. Include in the Procurement Engineering Package (PEG package) all requirements which are necessary to identify, establish, justify, or validate the technical and quality requirements for the procurement of permanent plant equipment, materials, and non-personal services at TVA WBN Plant (refer to Section 2.4).
- B. Ensure reference to or attachment of the supporting documentation for ITEMS originally or previously procured and ITEMS for which a controlled specification exists.

## 2.6 Engineering Procurement Package Preparation, Review, Approval and Use (continued)

- G. Use the PEG package to support Procurement Master Data Sheet(s) except when the PMDS is used to document a QA level 0 procurement.
- D. Include review and approval signatures addressing all documentation contained in the package as part of the cover sheet.
- E. Review packages including revisions for correct quality, technical and contract requirements. Same level of review as original package is required unless otherwise identified in this SSP.

### Nuclear Fuels

- F. Prepare all packages for nuclear fuel assemblies and fuel-related components in accordance with Nuclear Fuels procedures. Coordinate with Engineering when design basis is affected.

### PEG

- G. Prepare, review, approve and use the Engineering Procurement Package (PEG) in accordance with the design control program established by NEP-5.1 and NEP-5.2.
- H. Prepare the PEG package by completing a cover sheet, Appendix H, and assembling all applicable documentation including other appendixes resulting from the requirements of Sections 2.2, 2.3, 2.4, and 2.5. As practical, the PEG package assembly order should be Appendix, H, E, F, NE input (PI005, 2652, 10606, etc.), G. External Attachments (PF Specs, Material Specs, etc.) A, C, B, D, and other sheets.
- I. Assign a single identification number to the cover sheet and use this number on the forms and documents contained in the package. Attachments need not be included in the package when the attachment has a unique document number and page sequencing is maintained and the attachment is referenced in the PEG package. Each page of the PEG package shall include the identification number and page number.<sup>7</sup>
- J. Prepare packages for pre-engineered commodities (e.g., conduit and fittings, bolts, nuts, terminal lugs, fuses, steel shapes, bearings, etc.) that:
  - 1. Contain generic evaluations which envelop a wide range of technical and quality requirements.
  - 2. Consider both nuclear grade and COMMERCIAL GRADE ITEMS.

2.6 Engineering Procurement Package Preparation, Review, Approval and Use  
(continued)

K. Perform independent design verification on:

## NOTE

*This review (e.g., design verification) should not duplicate any INDEPENDENT REVIEW performed on "key design documents" that provide input to the contents of the Engineering Procurement Package.*

1. Engineering Procurement Packages prepared for SAFETY-RELATED ITEMS and services and for those ITEMS and services where TVA identified quality-related programs require independent design verification (QA I, II, III).<sup>3</sup>
  2. Engineering Procurement Packages prepared for non SAFETY-RELATED ITEMS and services where the HOST EQUIPMENT is a BASIC COMPONENT (QA III).
- L. Perform design verification on assigned packages addressing the following as a minimum:
1. Correct design basis review as defined in Section 2.3.2.
  2. Inclusion (may be by reference) of appropriate design basis documents.
  3. Functional based safety classification (reference EPRI NP-6895) or Q-List reference.
  4. Critical characteristics for CGI intended for SAFETY-RELATED applications.
  5. ACCEPTANCE METHODS to demonstrate acceptability for service.
  6. Special receipt inspection instructions as needed.
  7. Inclusion of existing controlled specifications in accordance with Section 2.2.
  8. Consideration for SEISMIC/STRUCTURAL and ENVIRONMENTAL QUALIFICATION.
  9. Appropriate quality requirements.
  10. Applicable handling, storage, cleaning, and shipping requirements.
  11. Applicable documentation requirements such as vendor manuals, drawings, test results, etc.

## Nuclear Quality Assurance

- M. Review/monitor packages for quality-related ITEMS and services in accordance with NQA program requirements/and site instruction.

**2.6 Engineering Procurement Package Preparation, Review, Approval and Use  
(continued)**

**NOTE** *During offshift, emergency conditions, or other times when the INDEPENDENT REVIEWER, PEG Manager, or SQA reviewer is not available, the reviews can be accomplished per telecon. The output package will be reviewed by the responsible person(s) on the next available working day.*

**PEG**

- N. Complete required signatures on package coversheet.
- O. Process APPROVED packages in accordance with Document Control program.

**2.7 Procurement Master Data Sheet Preparation, Review, Approval and Use****PEG**

- A. Use the Procurement Master Data Sheet (PMDS) as cover page and the design output document by which Engineering provides Materials and Procurement all necessary technical and quality requirements for the procurement and receipt of a single line ITEM. Primarily used for procurement of stocked inventory ITEMS.

**NOTE** *A PMDS Must be substantiated by either a previous PEG package or a new EPG package. The PMDS is used as the cover sheet for the PMDS package as applicable. PMDSs for QA level 0 procurements do not require a reference to previous PEG package.*

- B. Use Appendix I or similar form in content for the PMDS. The PMDS has provisions for the minimum information necessary to communicate, in a consistent and standard manner, the applicable technical and quality requirements for procurement. PMDS must reference a valid PEG package and only include attachments necessary for special action to be performed, or specification submittal to vendor. Paginate the PMDS as Page 1 for cover sheet, 2 for back side, 3 for any special QC instructions, etc. Attachments to the PMDS which are referenced and paginated by the attachment itself does not need to be included in the PMDS pagination.
- C. Use the standard internal (applicable to TVA) and external (applicable to vendor or supplier) notes listed on Appendix I to identify technical, quality and administrative procurement requirements as they apply to an ITEM. The standard notes are contained in a Corporate Engineering Design Standard. The Design Standard is controlled according to the design control program established by Engineering procedures and is distributed as a minimum to Engineering and Materials and Procurement at each site.

2.7 Procurement Master Data Sheet Preparation, Review, Approval and Use  
(continued)

## Materials and Procurement

- D. Use the PMDS as the authorizing document for Material and Procurement until:
1. The expiration date expires, or
  2. It is superseded by Engineering

## PEG

- E. Add new line ITEMS to an existing PEG Package or a TIIC attachment to a Standard Package without revision to the package provided that:
1. The PEG package properly envelops the technical and quality requirements for the ITEM,
  2. A PMDS is prepared for the ITEM, and
  3. The PEG package RIMS number is referenced on the PMDS. Add note following package RIMS number entry in PMDS: "Envelopes requirements for this TIIC."
- F. Prepare, review, approve and release the PMDS in accordance with the design control program established by Engineering procedures.
- G. Prepare a PMDS that includes:
1. Technical and Quality requirements contained or referenced in the PEG Package in clear and concise terms.
  2. Identification of applicable standard notes.
  3. Attachment or reference of additional technical and quality requirements of the PEG package which the PMDS does not accommodate.
  4. The PEG Package RIMS number.
  5. The PMDS expiration date (two-year review required for SAFETY-RELATED classifications).
- H. Perform review and independent design verification, as applicable, according to the requirements of Section 2.6.

**2.7 Procurement Master Data Sheet Preparation, Review, Approval and Use  
(continued)**

- I. Obtain Nuclear Quality Assurance review of quality-related ITEMS (QA Level I, II, and III) and services (QA Level IS and IIIS) within the scope of TVA-NQA-PLN89. PMDS for ITEMS that have been previously reviewed and APPROVED, and that have not changed from the previous specification requirements do not require additional review and approval by NQA except if material is ASME code related.

**Nuclear Quality Assurance**

- J. Review/monitor quality-related ITEMS and services in accordance with NQA program requirements and site instructions.

**PEG**

- K. Process APPROVED PMDS in accordance with document control requirements (RIMS system).
- L. Forward PMDS original to Site Materials and Procurement.
- M. Maintain a list and file copy of PMDS' supported by each PEG Package. PMDS sheets for QA level 0 should be filed separately.
- N. Revise all affected PMDS supported by an PEG package which has been revised and the revised PEG package impacts the previous technical or quality requirements for procurement, receipt, storage, or installation.

**CAUTION**

Changes to technical and quality requirements may require placing existing material on hold and/or non-conforming status. PEG must ensure immediate notification of any non-conforming status per Section 2.10.

**2.7 Procurement Master Data Sheet Preparation, Review, Approval and Use  
(continued)****Site Materials and Procurement**

- O. Use the PMDS to prepare the appropriate Nuclear Power procurement document.
- P. Ensure that ASME procurement documents for TVA ASME Section III ITEMS receive Engineering review and approval.
- Q. Obtain Engineering evaluation and resolution on issues affecting technical and quality requirements (internal or external notes attachments) established or referenced by the PMDS.
- R. Ensure correct use and application of the APPROVED PMDS in reorder activities.
- S. Forward original PMDS and applicable attachments to Engineering when the ITEM comes up for reorder if the expiration date has expired.

**NOTE** *PMDS should be submitted for PEG review six months prior to the expiration date.*

**PEG**

- T. Perform reorder verification review of the original PMDS and attachments by verifying that the technical and quality requirements contained in the Engineering Procurement Package have not changed due to changes to applicable standards, specifications, licensing commitments or design basis documents.
- U. Supersede the PMDS if the information is no longer correct and issue a new data sheet. Mark the original as "superseded" and place with new file copy. Superseded originals are utilized for historical purposes only and not a QA record.
- V. If the PMDS information has been verified as being correct, then process by completing the following:
  - 1. Determine and record a new expiration date.
  - 2. Sign and date the new expiration date.
  - 3. Issue the PMDS according to Steps K and L.

**2.8 Bid Review and Recommendations<sup>3</sup>****Materials and Procurement**

- A. Forward the bids to Engineering for review if:
  - 1. The procurement document requires it.

2.8 Bid Review and Recommendations<sup>3</sup> (continued)

2. The bidder takes exception to the technical and quality requirements (external notes/attachments).
3. The bidder offers substitutions.

## Purchasing

- B. Forward bids for ECN/DCN and NSSS procurements to PEG with Site Materials and Procurement concurrence.

## PEG

- C. Perform a documented review of all bids or quotes which impact technical or quality requirements.
- D. Evaluate the bid or quote with regard to the following subjects as applicable to the type of procurement:<sup>3</sup>
  1. The original contract requirements and consideration of current technical and QA requirements.
  2. Research and development effort.
  3. Supplier's personnel qualifications.
  4. Supplier's production capability.
  5. Supplier's past performance (NPRDS and NQA vendor performance file are recommended sources).
  6. Alternates. Perform an EQUIVALENCY EVALUATION as required.
  7. Exceptions, as applicable.
  8. APPROVED Supplier's List and mailing list.
- E. Prepare a recommendation of award or rejection based on the results of the bid evaluation.<sup>3</sup>
- F. Ensure all technical and quality requirement changes as a result of bid evaluation receive review and approval by the same organization that performed the original review and approval.<sup>1, 3</sup>
- G. Forward recommendation and bids resolution to NQA as required in Section 2.6.

**2.8 Bid Review and Recommendations<sup>3</sup> (continued)**

- H. Return the bids and recommendation to Site Materials and Procurement or Purchasing, as appropriate, with a copy of the recommendation to RIMS.

**2.9 Technical Contract Administration****2.9.1 Change to Technical and Quality Requirements**

PEG

Ensure all technical and quality requirement changes to procurement documents receive review and approval by the same organization that performed the original review and approval.<sup>3</sup> Changes such as typographical corrections, quantity, or monetary changes do not require technical or QA approval. Design changes to procurement documents for QA ITEMS may be implemented upon review and approval of procurement document by TVA and accepted by the respective supplier.

**2.9.2 Change to Safety Classification**

PEG

Prepare a documented evaluation with a revised safety classification including the basis for compliance with plant licensing commitments and end use qualification. Identify new tagging instructions for stocked materials and file maintenance requirements. Ensure steps are provided to properly identify, segregate, and disposition bin material as necessary.

NOTE

*Reorder changes from non-safety to SAFETY-RELATED must include in the evaluation the impact of previous material issued to the plant as well as those stocked for issue. QA level changes requires re-assignment of a new or alternate TIIC number.*

**2.9.3 Technical Description or Part Number Change**

- A. When possible, add to the MANS screen (for INFORMATION ONLY) a trail of historical manufacturers and part numbers. This facilitates the ability of the user to relate warehouse stock to existing parts information contained in maintenance instructions, vendor manuals, etc.

PEG

- B. Determine that a technical description (noun name and long description, QA level, manufacturer "primary only") or primary part number change (other than administrative) is required and:

1. Perform an evaluation for the change per Section 2.3.

**2.9.3 Technical Description or Part Number Change (continued)**

2. Determine if the change is identical or constitutes an alternate ITEM.
3. Document accordingly.
4. Process in accordance with Sections 2.6 and 2.7 as applicable.

**NOTE**

*Other fields are considered non-technical and shall not be used as a reliable source of information.*

- C. Evaluate alternates for equivalency (Section 2.3.3) to the original part considering:
  1. Current design requirements.
  2. Vendor input as necessary.
  3. Changes to existing design output (DCN, etc.).
  4. Effects upon related design input or output.
- D. Process in accordance with the design change process if required.

**2.9.4 Vendor Supplied Information****NOTE**

*APPROVED vendor documents, except vendor manuals, become design output, and after the contract is closed, revisions to APPROVED vendor documents can be handled in the same manner as revisions to TVA documents, coordinating with the contractor as required. Route vendor submittals through the appropriate Document Control and Records Management (DCRM) section for control before NE-PEG processing.*

**Receiving Personnel**

- A. Submit to PEG, vendor documents (which are not identified in the procurement document) for NE review or approval and vendor documents requested on the procurement document to be submitted to PEG.

**PEG**

- B. Receive vendor submittals and perform required technical review. Typically, vendor documents include:
  1. Drawings
  2. Vendor manuals
  3. Seismic and ENVIRONMENTAL QUALIFICATION test reports.
  4. Vendor procedures
  5. Vendor personnel qualifications
  6. NDE reports (such as radiographic film)

**2.9.4 Vendor Supplied Information (continued)**

Typically, vendor information includes:

1. Shelf life recommendations
  2. In-storage maintenance recommendations
  3. Storage recommendations
- C. Complete the technical review by stamping the vendor documents in accordance with the following:
1. ACCEPTED FOR USE (AU)
  2. APPROVED (A)
  3. APPROVED WITH CORRECTIONS AS NOTED (ACN)
  4. Information Only (IO)
  5. INFORMATION ONLY WITH TVA COMMENTS (I/C)
  6. RETURNED FOR CORRECTION (RC)
- D. Ensure reviews for interface and approval are performed as required. This includes review of vendor manuals for technical adequacy and accuracy as appropriate.
- E. Process vendor manuals for technical adequacy and accuracy in accordance with SSP-2.10, "Vendor Manual Control."
- F. Compile review comments and return the submittal to the vendor by way of letter for the Engineering Manager's signature.
- G. Distribute internally and to materials QC (identify contract number), assigning document status as appropriate in accordance with Step C.
- H. Place copies of APPROVED or accepted vendor documents in the records system in accordance with the records management program.

**2.10 ACCEPTANCE of Procured Items****Nuclear Quality Assurance**

- A. Perform audits, surveys, and source verification using technical and quality requirements established in the procurement document.
- B. Accept procured ITEMS by receipt inspection according to SSP-10.02 or site QA program and perform or witness, special pre-installation tests or inspections as established by the technical and quality requirements in the procurement document.

## 2.10 ACCEPTANCE of Procured Items (continued)

PEG

- C. Provide technical expertise for and/or participate in performance based audits as requested by the NQA auditing organization and technical support as required in the receiving of procured ITEMS.
- D. Evaluate material nonconforming conditions in accordance with the corrective action program and provide immediate notification of non-conforming material status to QC, NS, M&P, and others as applicable.

**NOTE** *Non-conforming conditions encountered with material received, uncorrected technical documentation, previously procured material which cannot be dedicated to the specific installed application identified during a current ITEM reorder, or any stock material remaining with the same TIIC as the non-conforming ITEM are also evaluated in accordance with the corrective action program.*

## Site Materials and Procurement

- E. Accept procured ITEMS by receipt verification according to SSP-10.02.

## 2.11 Industry/Plant Material Experience

PEG

- A. Consider NPRDS, Plant Trending Reports (STD-10.3.406), 10CFR Part 21 reports, and other sources of information to identify impact to previously procured material technical and quality requirements.
- B. Document the evaluation per Section 2.6.

## 3.0 RECORDS

## 3.1 QA Records

The following documents are QA records and are verified and then transmitted to DCRM by the responsible organization in accordance with the DCRM program:

Quality-related Engineering Procurement Package

Quality-related Procurement Master Data Sheet

### 3.2 Non-QA Records

The following documents are non-QA records and are to be handled in accordance with the DCRM program:

Engineering Procurement Packages not identified as a QA record

Procurement Master Data Sheets not identified as a QA record

Superseded PMDS originals and PEG file copy

### 4.0 DEFINITIONS

#### ACCEPTABLE SUPPLIER LIST (ASL)

A list of suppliers who have been evaluated by Nuclear Quality Assurance (NQA) Materials and Procurement Quality Department (MPQD) and determined to have the required elements of the applicable QA program relative to the ITEM(s) or service(s) supplied.

#### ACCEPTANCE

The employment of methods to produce objective evidence which provides reasonable assurance that the ITEM received is the ITEM specified.

#### ACCEPTANCE CRITERIA

A limit or limits placed on the variation, including appropriate tolerances, permitted in the characteristics of an ITEM expressed in definitive engineering terms such as dimensional tolerances, chemical composition limits, density and size of defects, temperature ranges, time limits, operating parameters, and other similar characteristics.

#### ACCEPTANCE METHOD

Methods employed to produce objective evidence which provides reasonable assurance that an ITEM received conforms to specification requirements. Four methods are typically considered:

1. Special tests and inspections (including engineering evaluation)
2. Commercial Grade Survey of supplier.
3. Source verification
4. Acceptable supplier/ITEM performance record.

## 4.0 DEFINITIONS (continued)

## ACCEPTED FOR USE (AU)

A stamp used to indicate a status given to vendor instruction manuals and similar documents including certain procedures when TVA design interface is not directly affected. The stamp indicates a cursory review of the information in the document was made by Engineering, but the technical adequacy of the document will be verified through its use. The stamp does not preclude a TVA review or the return of comments to the vendor that vendor manuals for safety related ITEMS require an "APPROVED" status code stamp.

## ALTERNATE ITEM REPLACEMENT

Replacement item which is different in design or material or manufacturing process than the item in service (requires DCN when design is impacted, otherwise an engineering evaluation required and included in the PEG package).

## APPROVED (A)

A stamp used to indicate that a vendor document was reviewed and found to meet the technical and contractual requirements of TVA's contract with the vendor. An APPROVED status assigned by TVA proceed (after receiving the prints marked APPROVED from TVA) with the fabrication of the equipment or material covered by the documents. However, this approval does not relieve the vendor of his total responsibility for the correctness of design, details, and dimensions. Any work done or material ordered by the vendor before receiving the marked "APPROVED" prints from TVA is at the risk of the vendor.

## APPROVED WITH CORRECTIONS AS NOTED (ACN)

A stamp used to indicate that a vendor document was reviewed and found not to comply with the design bases in TVA's contract with the vendor. The stamp is used when drawing deficiencies are specific in nature. The required corrections can be marked directly on the document (i.e., specific drawing changes or specific wording changes), or specific comments may be written in the acknowledgment letter. However, this approval does not relieve the vendor of his total responsibility for the correctness of design, details, and dimensions. Prints marked "APPROVED WITH CORRECTIONS AS NOTED" authorize the vendor, on receipt of these prints from TVA, to proceed with the fabrication of the equipment or material covered by the drawings as corrected. Any work done or material ordered by the vendor before receiving these prints from TVA is at the risk of the vendor. The vendor must correct the drawing and resubmit a reproducible of it to TVA for approval.

## 4.0 DEFINITIONS (continued)

## BASIC COMPONENT

A plant structure, system, component, or part thereof necessary to assure:

- A. The integrity of the reactor coolant pressure boundary, or
- B. The capability to shut down the reactor and maintain it in a safe shutdown condition, or
- C. The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referenced in 10 CFR 100.11. In all cases, "Basic Component" includes design, inspection, testing, or consulting services important to safety that are associated with the component hardware, whether these services are performed by the component suppliers or others.

NOTE The term SAFETY-RELATED and the term BASIC COMPONENT are synonymous for the purposes of this SSP. (SAFETY-RELATED is a subset of quality-related.)

## CERTIFICATE OF COMPLIANCE

A written statement, signed by a qualified individual, attesting that the ITEMS or services are per specified requirements and accompanied by additional information to substantiate the statement. (For ASME Code applications, the definition of "CERTIFICATE OF CONFORMANCE" shall apply when a CERTIFICATE OF COMPLIANCE is required.)

## CERTIFICATE OF CONFORMANCE (COC)

A written statement, signed by a qualified party, certifying that ITEMS or services comply with specific requirements.

## CLASS 1E

The classification of the electrical equipment and systems that are essential to emergency reactor shutdown, containment isolation, reactor core cooling, and containment and reactor heat removal, or otherwise are essential in preventing significant release of radioactive material to the environment.

## COMMERCIAL GRADE ITEM (CGI)

An ITEM which is:

- A. Not subject to design or specification requirements that are unique to nuclear facilities or activities and
- B. Used in application other than nuclear facilities or activities and
- C. Ordered from the manufacturer or supplier on the basis of the specifications set forth in the manufacturer's published product description (for example, a catalog).

**4.0 DEFINITIONS (continued)****COMPUTER-GENERATED STOCK REORDER FORMS AND AUTOMATIC STOCK REORDER (ASR)  
(i.e., called RSR or PI-005)**

A form automatically issued when stock levels fall to established reorder points or when requested to meet anticipated needs that includes limited technical and commercial information to initiate a procurement.

**CONDITIONAL ACCEPTANCE (Conditionally Dedicated)**

The process where Engineering has determined an ITEM has undergone the specified ACCEPTANCE process except for pre- or post-installation testing requirements. These ITEMS are released to the field for completion of the ACCEPTANCE process prior to plant or system operation. This process is sometimes referred to as "conditionally dedicated."

**CREDIBLE FAILURE MECHANISM**

The manner by which an ITEM may fail, degrading the ITEM's ability to perform the component/system function under evaluation.

**CRITICAL CHARACTERISTICS FOR ACCEPTANCE**

Identifiable and measurable attributes/variable of a COMMERCIAL GRADE ITEM, which once selected to be verified, provide reasonable assurance that the ITEM received is the ITEM specified.

**NOTE** CRITICAL CHARACTERISTICS FOR ACCEPTANCE are a subset of CRITICAL CHARACTERISTICS FOR DESIGN.

**CRITICAL CHARACTERISTICS FOR DESIGN**

Those properties or attributes which are essential for the ITEM's form, fit and functional performance. CRITICAL CHARACTERISTICS FOR DESIGN are the identifiable and/or measurable attributes of a replacement ITEM which provides assurance that the replacement ITEM will perform its design function.

**SAFETY-RELATED**

All BASIC COMPONENTs (nuclear SAFETY-RELATED) and other critical (non-nuclear SAFETY-RELATED) ITEMS. All ITEMS marked "Q" on the WBN Q-List are considered SAFETY-RELATED.

**DEDICATION**

The point in time after which a COMMERCIAL GRADE ITEM is accepted for a SAFETY-RELATED application and deficiency reporting becomes the responsibility of the party performing the ACCEPTANCE.

## 4.0 DEFINITIONS (continued)

**ENGINEERING ANALYSIS**

A process of mathematical or other logical reasoning that leads from stated premises to the conclusion concerning specific capabilities of equipment and its adequacy for the application. An analysis may be utilized to verify a **CRITICAL CHARACTERISTIC FOR DESIGN**.

**ENVIRONMENTAL QUALIFICATION (EQ)**

The process of documenting that a component has been manufactured using materials which are capable of withstanding the operational stresses, both normal and post-accident, which are induced by the component's environment at its installed location, and that it will be capable of performing its required accident mitigating function.

**EQUIVALENCY EVALUATION**

A technical evaluation performed to confirm that an alternate replacement ITEM (not identical to the original) will satisfactorily perform its design function. This term is synonymous with "Equal-To-or-Better-Than" evaluation.

**HOST (OR PARENT) EQUIPMENT**

That equipment or component which receives and provides lodgment for the ITEM being procured or houses the ITEM for which services are procured. For example, a valve is the host for a procured valve stem.

**INDEPENDENT REVIEW**

Review completed by personnel not having direct responsibility for the work function under review, regardless of whether they operate as a part of an organizational unit or as individual staff members.

**NOTE** The INDEPENDENT REVIEW shall be performed by an NE Engineer (or other knowledgeable individual authorized by the PEG Manager or designee), other than the Engineer who prepared the procurement document, who has access to pertinent information and has an adequate understanding of the requirements and intent of the procurement document to ensure adequacy, correctness, and completeness of technical and quality requirements. The Independent Reviewer must not be the preparer's direct Supervisor.

If in an exceptional circumstance, the engineer's supervisor is the only person technically qualified to perform the review, the design verification review will be conducted by the supervisor provided that:

1. The other provisions of the Regulatory Guide 1.64 and ANSI N45.2.11 Section 6.1 are satisfied.
2. The justification is individually documented and APPROVED in advance by the supervisor's management.
3. Quality Assurance will audit the use of supervisors as design verifiers to guard against abuse.

## 4.0 DEFINITIONS (continued)

## INFORMATION ONLY (IO)

A stamp used to indicate a status given to documents supplied by the vendor to give immediate general information about some material or equipment that the engineer may require. The stamp indicates that no detailed technical review of the document was performed. Normally, this stamp is used only to acknowledge receipt of the document by TVA and to distribute it to the affected groups and to the files for information.

## INFORMATION ONLY WITH TVA COMMENTS (I/C)

A stamp used to indicate that TVA has suggested changes to be made to a vendor document which normally receives an "IO" status.

## ITEM

Any level of unit assembly, including structure, system, subsystem, subassembly, module, component, equipment, part, or material.

## LIKE-FOR-LIKE REPLACEMENT

A replacement item may be considered a "like for Like" replacement when Engineering verifies through objective evidence that the replacement item is identical (reasonable assurance of same fit, form, function, manufacturing process, and materials).

## LIMITED QA PROGRAM

A system of special management controls which is applied to Nuclear Power (NP) special programs and special features in order to ensure that they are appropriately controlled (subset of quality related).

## MAMS DESCRIPTION APPROVAL CODE (DA)

Indicates whether the ITEM's description has been APPROVED for procurement purposes, and, if so, what type of procurement process is APPROVED.

- A. "Y" DA Code - Indicates that the description (including the QA level) is correct, correct attachments (Materials Data Base contains all technical, documentation, and quality assurance requirements needed to procure the ITEM) are issued with the Recommended Stock Reorder (RSR), and that the ITEM is APPROVED for automated procurement by NE and SQA.
- B. "M" DA Code - Indicates that the description (including QA level) is correct and the ITEM is APPROVED for manual procurement which has received a review by NE and SQA.
- C. "N" DA Code - Indicates that the description of the ITEM has not been APPROVED by NE and SQA.

## 4.0 DEFINITIONS (continued)

**MATERIALS MANAGEMENT SYSTEM (MAMS)**

An integrated computer-oriented system which provides support for procurement of material and replacement parts.

**ORIGINAL ITEM**

An ITEM which came as part of the structure or installed equipment. The installed structure or equipment is the licensing design baseline including any subsequent design or licensing commitment changes.

**PROCUREMENT DOCUMENT**

Documentation used as the reference for procuring material (contract, PEG package, receipt inspection, bid and quote, etc.)

**PROCUREMENT REQUEST (PR) NUMBER**

A unique control number (with revision level, as applicable) which may be assigned by the processing organization for tracking and reference purposes in the design change notice.

**PROCUREMENT SPECIFICATION**

Engineering specification containing technical and quality requirements for the procurement of an ITEM or service.

**NOTE** Quality Assurance Levels are for internal TVA use, only to receive, handle, and issue an ITEM. They do not determine procurement or engineering requirements. They are defined as follows:

**QUALITY ASSURANCE LEVEL I**

Those materials, components, and spare parts that are supplied to TVA as qualified for basic-component use.

**QUALITY ASSURANCE LEVEL IS**

Services that are design, inspection, testing, or consulting/installation services affecting the SAFETY-RELATED function of BASIC COMPONENTS.

**QUALITY ASSURANCE LEVEL II**

Those materials, components, and spare parts that are supplied to TVA as commercial grade and dedicated by TVA for use as "BASIC COMPONENTS" [Quality Level I(B) at SQN].

## 4.0 DEFINITIONS (continued)

## QUALITY ASSURANCE LEVEL III

Those materials, components, and spare parts related to BASIC COMPONENTS that do not affect the SAFETY-RELATED function of the BASIC COMPONENTS. Also includes any materials, components, or spare parts of limited QA and quality-related ITEMS that have attributes that are specifically required to meet engineering or regulatory requirements which are not BASIC COMPONENTS.

## QUALITY ASSURANCE LEVEL IIIS

Services related to SAFETY-RELATED and quality-related ITEMS which are relatively simple, standardized services (such as machining a shaft) which may be adequately verified through ACCEPTANCE inspections, tests, or reviews and will not require special controls to prevent the service from degrading the quality or function of the ITEM.

## QUALITY ASSURANCE LEVEL "O" (NON-QA)

An ITEM which has no quality requirements.

## QUALITY-RELATED (QR)

For the purpose of this SSP, Quality-Related includes SAFETY-RELATED and nonSAFETY-RELATED items QA level I, II, or III classifications (Ref. TVA-NQA-PW89).<sup>4</sup>

For Q-List purposes, a term which refers to those structures, systems, components, and activities to which special management controls are applied. This term is synonymous with stating that limited quality assurance applies, or that an item is quality-related but not safety-related.

## RETURNED FOR CORRECTION (RC)

A stamp used to indicate that a vendor document was reviewed and found not to comply with the design bases in TVA's contract with the vendor. The stamp is used when document deficiencies are general in nature and may or may not be specifically marked on the document. A print marked "RETURNED FOR CORRECTION" does not authorize the vendor to proceed with the fabrication or ordering of material. The vendor must correct the document deficiencies and submit a reproducible of the corrected document to TVA for approval.

## SAFETY RELATED

Refer to basic component.

## 4.0 DEFINITIONS (continued)

## SEISMIC/STRUCTURAL QUALIFICATION

The process of documenting that Category I and I(L) structures, systems and components are capable of withstanding design basis loading conditions (including normal, seismic, transient, and accident loads) in conformance with applicable design criteria.

## 5.0 REFERENCES

## 5.1 Source Documents

- A. ANSI N45.2.11, Quality Assurance Requirements for the Design of Nuclear Power Plants
- B. ANSI N45.2.13, Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants
- C. TVA-NQA-PLN89-A Nuclear Quality Assurance Plan
- D. STD-6.4 Equipment History and Failure Trending
- E. 10CFR21 Reporting of Defects and Noncompliance

## 5.2 Interface Documents

SS-E18.10.01 Environmental Qualification Requirements for Safety-Related Electrical Equipment

- A. NEP 5.1 Design Output
- B. NEP 5.2 Review
- C. SSP-2.10 Vendor Manual Control
- D. SSP-10.01 Procurement of Materials and Services
- E. SSP-10.02 Material Receipt and Inspection
- F. SSP-10.04 Material Issue, Control, and Return
- G. EAI-7.05 Watts Bar 10CFR50.49 Program Requirements For Environmental Qualification of Electrical Equipment

## 5.3 Other Documents

- A. SSP-6.04 Equipment History and Failure Trending
- B. SSP-6.09 Repair/Replacement of ASME Section XI Components
- C. General Construction Specification G-29 Process Specifications for Welding, Heat Treatment, Nondestructive Examination, and Allied Field Fabrication Operations

## 5.3 Other Documents (continued)

- D. General Engineering Specification G-62 Material Documentation and Acceptability Requirements for ASME Section III Applications
- E. NUREG 0588, Environmental Qualification
- F. Regulatory Guide 1.64 Quality Assurance requirements for the Design of Nuclear Power Plants
- G. Regulatory Guide 1.89 Environmental Qualification of Certain Electrical Equipment Important to Safety for Nuclear Power Plants

## 5.4 Developmental Documents

- A. EPRI NP-5638, Guidelines for Preparing Specifications for Nuclear Power Plants.
- B. EPRI NP-5652, Guideline for the Utilization of COMMERCIAL GRADE ITEMS in Nuclear Safety Related Applications.
- C. EPRI NP-6629, Guideline for the Procurement and Receipt of Items for Nuclear Power Plants.
- D. EPRI NP-6895, Guideline for the Safety Classification of Systems, Components and Parts Intended for Use in Nuclear Power Plants.
- E. IEEE-323-1974, Standard for Qualifying CLASS 1E Equipment for Nuclear Power Generating Stations.

APPENDIX A  
Page 1

TECHNICAL EVALUATION FORM  
PEG PACKAGE NUMBER: \_\_\_\_\_

PROC. REF. ITEMS: \_\_\_\_\_ QA LEVEL \_\_\_\_\_  
REF. DOCUMENT: (ECN/DCN, CCB, MR, etc.) \_\_\_\_\_ ( ) N/A

PART IA - REPLACEMENT ITEM END USE:

H O S T	HOST EQUIPMENT DESCRIPTION UNID(S): _____
	HOST SAFETY FUNCTIONS CONSIDERED (i.e., allow flow, press. integrity, conducts, etc). _____
	IDENTIFY POTENTIAL OR ACTUAL USES TO OBTAIN THE MOST STRINGENT CLASSIFICATION: <input type="checkbox"/> 10 CFR 50.49 <input type="checkbox"/> SAFETY RELATED (SR) <input type="checkbox"/> QUALITY RELATED <input type="checkbox"/> NON SR
	BASIS FOR CLASSIFICATION: _____
E Q U I P M E N T	REFERENCES (Drawings, Tech. Manual, FSAR, etc.) Q-LIST NO. _____ REV. _____
	IF 10 CFR 50.49: EQ BINDER NO. _____ REV. _____ ( ) N/A

PART IB - ITEM DATA: ( ) N/A - ITEM IS A WHOLE DEVICE, SAME AS HOST EQUIPMENT

I T E M	ITEM NAME OR TIIC: _____
	ITEM FUNCTION(S): _____
	_____
R E Q U E S T E D	ITEM CLASSIFICATION BASED ON PRIMARY OR SECONDARY SAFETY FUNCTION: <input type="checkbox"/> SAFETY-RELATED (BASIS NOT REQUIRED) <input type="checkbox"/> NOT SAFETY RELATED - BASIS NOT REQUIRED FOR NON SAFETY RELATED HOSTS. - BASIS FOR CONCLUDING ITEMS' FAILURE WILL NOT IMPEDE HOST SAFETY FUNCTIONS CONSIDERED OR NO CREDIBLE FAILURE MODE EXISTS: _____
	_____
	_____
	REF. SPEC., DRAWING, PROCEDURE, ETC.: _____ OTHER _____ <input type="checkbox"/> SEE ATTACHED SHEET FOR ANALYSIS, BASIS FOR NON SAFETY RELATED STATUS

APPENDIX A  
Page 2

TECHNICAL EVALUATION FORM

PEG PACKAGE NUMBER: \_\_\_\_\_

PART IC: NON STOCK ITEMS FOR DESIGN CHANGE PACKAGES: ( ) N/A

BASIS PER DESIGN CHANGE PACKAGE: \_\_\_\_\_ PR NO. \_\_\_\_\_

HOST EQUIPMENT: ( ) SAFETY RELATED ( ) NOT SAFETY RELATED  
( ) 10 CFR 50.49 ( ) QUALITY RELATED ( ) PAM

ITEM: ( ) SAFETY RELATED ( ) NOT SAFETY RELATED

PART ID: SAFETY CLASSIFICATION: QA LEVEL CHANGE FROM \_\_\_ TO \_\_\_ ( ) N/A

HOST EQUIPMENT IS:

( ) NOT QUALITY RELATED AND NOT SAFETY RELATED - Procure item QA level 0 - Complete Part IV if needed. No further review required (abbreviated PEG package).

( ) SAFETY RELATED OR QUALITY RELATED:

ITEM IS CLASSIFIED:

( ) NOT SAFETY RELATED - procure item QA level III, COMPLETE PARTS IV and V.

(No item function is required for host safety functions considered or no item credible failure mechanism would prevent/impede host safety functions considered.)

( ) SAFETY RELATED:

( ) ITEM TO BE PROCURED AS SAFETY RELATED - procure item QA level I, COMPLETE PARTS IV AND V.

( ) ITEM TO BE PROCURED AS A COMMERCIAL GRADE ITEM - procure item QA level II, - COMPLETE PARTS II, III, IV AND V.

APPENDIX A  
Page 3

TECHNICAL EVALUATION FORM PEG PACKAGE NUMBER: \_\_\_\_\_

PART II: COMMERCIAL GRADE DETERMINATION

IF THE ANSWER TO QUESTIONS 1, 2, AND 3 ARE ALL TRUE, THE ITEM MAY BE PROCURED AS A COMMERCIAL GRADE ITEM. IF THE ANSWER IS FALSE THE ITEM MAY NOT BE PROCURED AS COMMERCIAL GRADE, THE ITEM MUST BE PROCURED AS QA I, (EXAMPLE, THIRD PARTY QUALIFICATION).

- | TRUE   | FALSE |   |
|--------|-------|---|
| 1. ( ) | ( )   | THE ITEM IS NOT SUBJECT TO DESIGN OR SPECIFICATION REQUIREMENTS THAT ARE UNIQUE TO NUCLEAR FACILITIES,  |
| 2. ( ) | ( )   | THE ITEM IS USED IN APPLICATIONS OTHER THAN NUCLEAR FACILITIES AND ACTIVITIES,  |
| 3. ( ) | ( )   | THE ITEM IS TO BE ORDERED FROM THE MANUFACTURER/SUPPLIER ON THE BASIS OF SPECIFICATIONS SET FORTH IN THE MANUFACTURER'S PUBLISHED PRODUCT DESCRIPTION (such as CATALOG). (PROVIDE COPY OR REFERENCE VENDOR'S PUBLISHED DOCUMENT NUMBER IN PEG PACKAGE.) |

PART III: CRITICAL CHARACTERISTICS VERIFICATION

\* ITEM FUNCTIONS IMPACTING HOST SAFETY FUNCTIONS CONSIDERED:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

*	CRITICAL CHARACTERISTIC FOR ITEM FUNCTIONS	ACCEPTANCE CRITERIA	ACCEPT. METHODS (a)	REFERENCE/SOURCE (DWG, CONTRACT, B/M, ETC.)

- |  |                                 |
|--|---------------------------------|
| a) PR - Procurement Document (Supplier) Reqmt    | TR - Test Reports               |
| CC - Certificate of Conformance or equivalent    | RI - Receipt Inspection         |
| EE - Engineering Evaluation                      | VP - Vendor or Item Performance |
| FT - Functional Test (Pre- or Post-Installation) |                                 |

APPENDIX A Page 4

TECHNICAL EVALUATION FORM

PEG PACKAGE NUMBER: \_\_\_\_\_

PART IV: ACCEPTANCE METHODS - ( ) N/A (STANDARD NOTES LISTED ARE PER DS-M18.2.18 REVISION \_\_\_\_\_.)

EXTERNAL NOTE PROCUREMENT DOCUMENT (VENDOR) REQUIREMENTS: STATE QUALITY PROGRAM REQUIREMENTS (10CFR50, APPENDIX B, ASME, COMMERCIAL COC QPL, UL, ETC.), TECHNICAL REQUIREMENTS (DOC'S, MIL SPEC'S, MATERIAL SPEC'S, ETC.) AND ANY OTHER SUPPLIER ACTIVITIES (PROCEDURES, TESTING/SAMPLING, ETC.)

- Checkboxes for NOTE (QA PROGRAM) and MAILING LIST NO.

- INTERNAL ATTACHMENTS: ENGINEERING EVALUATION, SPECIAL RECEIPT INSPECTION, FUNCTIONAL TESTING, MATERIAL TAGGING INSTRUCTIONS - APPENDIX G COMPLETED. Includes 'Not Required' column.

- INTERNAL NOTES: (Use note number or written statement) File Maintenance Required, New TIIC Required, Stock Material Disposition, Routine QC Receipt Inspection Req'd.

- TVA Storage Shall Be Per ANSI N45.2.2 (A, B, C, D), TVA Special Storage, Sole Source Vendor, (N/A) ASL VENDOR NO., JUSTIFICATION FOR SOLE SOURCE PROCUREMENT.

**APPENDIX A  
Page 5**

**TECHNICAL EVALUATION FORM**

PEG PACKAGE NUMBER: \_\_\_\_\_

**PART V: PROCUREMENT PACKAGE CHECKLIST**

**PART VA: GENERAL REQUIREMENTS: (CHECK EACH BLOCK BELOW AS CONSIDERED)**

- ( ) Item Description/Scope of Work
- ( ) Procurement Technical Requirements (Include Reference to Drawings, Specifications, Procedures, Contracts, Codes, Standards, Test Requirements such as Material Performance and Functional Testing, Special Processes, Equipment Qualification - Test Report Referenced, Special Instructions, Personnel Qualifications, etc as applicable)
- ( ) Vendor Documentation Requirements (Include Vendor Certification Requirements - Certificate of Conformance, Certificate of Compliance, CMTR, Test Reports, etc; Submittals - Drawing, Procedures, Vendor Manuals, etc; as applicable)
- ( ) QA Program Requirements - Type: 10 CFR 50 Appendix B, Commercial Grade COG, Military Program per QPL listing, other program as evaluated by engineering and NQA; rights of access, nonconformance reporting,
- ( ) 10 CFR 21 as applicable
- ( ) Previous PMDS existing or impacted.

**PART VB: SPECIAL REQUIREMENTS: (CHECK EACH BLOCK BELOW AS CONSIDERED)**

\*Per Engineering Design Standard For Procurement Notes

- ( ) Special Receipt Inspection Requirements (Include Appendix E as internal attachment)
- ( ) Functional Testing Requirements (Include Appendix F as internal attachment)
- ( ) If Appendix F is specified, copies have been sent as specified on the form.
- ( ) Shelf Life Requirements - External Note\*
- ( ) In-storage Maintenance and Vendor Manual Requirements - External Note\*
- ( ) Special Source Inspection Requirements clearly specified (when invoked) - External Note\*
- ( ) Packaging, Handling, Shipping Requirements - External Note\*
- ( ) Tagging Requirements - Internal Note\* and/or External Note\*
- ( ) TVA (Test Labs) Test Requirements such as Material Performance, Chemical Analysis, Mechanical Properties, etc. - Internal Note\*







APPENDIX C  
Page 1 of 1

EQUIVALENCY EVALUATION FORM  
PEG PACKAGE NUMBER: \_\_\_\_\_

- Stock Material - TIIC No: \_\_\_\_\_
- Non Inventory Item (ECN, Direct Charge, etc.)
- Technical Description Change  
(Noun name or long description,  
qualified vendor, etc.)
- Initial Stock
- Part Number Change  
(Technical and Quality)
- Alternate Item

Item End Use Application: \_\_\_\_\_

Original Item/Material:  per attached \_\_\_\_\_

Description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MFR/PN \_\_\_\_\_

Replacement Item/Material:  per attached \_\_\_\_\_

Description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MFR/PN \_\_\_\_\_

ENGINEERING EVALUATION OF CHANGES

See "Engineering Evaluation Form" (required for alternate items)  
\_\_\_\_\_  
\_\_\_\_\_

Disposition of Stock Material: -  N/A  See Internal Notes (Appendix A)

REFERENCES:  N/A  
EQ BINDER # \_\_\_\_\_ DCN Request RIMS No. \_\_\_\_\_ MR \_\_\_\_\_  
Procurement/Design Spec. \_\_\_\_\_ Drawing \_\_\_\_\_ Vendor Manual \_\_\_\_\_  
Other \_\_\_\_\_

Distribution:  N/A  DCN Required  DCR Initiated

APPENDIX D  
Page 1 of 1

## SAFETY CLASSIFICATION FOR SERVICES

PEG PACKAGE NUMBER: \_\_\_\_\_

COMPLETE TECHNICAL EVALUATION FORM, PART IA, SUBSECTION: HOST EQUIPMENT DATA

EQUIPMENT IS:

- NOT A BASIC COMPONENT but is QUALITY-RELATED - procure services QA IIIS
- NOT QUALITY-RELATED - procure services QA Level 0
- BASIC COMPONENT:
  - Services are to be performed completely under TVA's QA program - procure service QA IIIS
  - Some or all services are to be performed under vendor's QA program:
    - Service does not affect safety-related function of host equipment and is relatively simple, standardized services (such as machining a shaft) which may be adequately verified through acceptance inspections, tests, or reviews and will not require special controls to prevent the service from degrading the quality or function of the item - procure services QA IIIS.
    - Service affects safety-related function of the host equipment, affects design basis of the item or system or conservative approach taken - procure services QA IS.

TECHNICAL EVALUATION FOR PROCUREMENT OF MATERIALS AND SERVICES

APPENDIX E Page 1 of 1

QC SPECIAL INSPECTION REQUIREMENT SHEET PEG PACKAGE NUMBER: \_\_\_\_\_

TIIC or P/N's \_\_\_\_\_

( ) Material Tagging At Receipt Is Required. Complete Appendix G.

Table with 5 columns: Inspection Attribute, Instruction or Procedure Including Acceptance Criteria, and three columns under QC INITIALS/DATE (SAT, \*UNSAT, \*CLARIFY). The table contains 10 empty rows for data entry.

Engineering Inspection At Receipt Is Required.

Originating Engineer Signature / Section / Date / Extension

\*Remarks

QC Inspector request for clarification/interpretation of inspection instruction/acceptance criteria.

Engr. clarification:

Engr./Section/Date

QC Inspection Performed SAT UNSAT QC Inspector / Date

Upon completion attach this Form to the QC Inspection Report and document SAT or UNSAT under Special Inspections.

APPENDIX F  
Page 1 of 1

FUNCTIONAL TEST REQUIREMENT SHEET

PEG PACKAGE NUMBER: \_\_\_\_\_

TIIC or P/N's \_\_\_\_\_

The following post-installation testing, part conditioning, and/or calibration must be completed prior to declaring the part acceptable for safety-related use and declaring the component, containing the item, operational.

Attribute	Instruction or Procedure Including Acceptance Criteria

If procedures are referenced above, the originating engineer certifies, by signature below, that these procedures have been reviewed and do verify the critical characteristic(s) as specified.

\_\_\_\_\_  
Originating Engineer Signature/Section/Date  
Extension \_\_\_\_\_

NOTE: Notify PEG if test/procedure listed is not available or cannot be performed.

Work/Testing criteria planned on: \_\_\_\_\_

MR No./Workplan No: \_\_\_\_\_  
Planner/Date \_\_\_\_\_ Ext. \_\_\_\_\_

All test(s) have been performed and results are acceptable. Component can be declared operational (include original in work package).

\_\_\_\_\_  
Cognizant Engineer/Date \_\_\_\_\_ Ext. \_\_\_\_\_

- \*cc: Modifications Manager (if Modification work)
- Maintenance Supervisor (if Maintenance work)
- QC Materials: Attachment to Special Receipt Inspection Requirement Sheet/Contract File (for information only)

APPENDIX G  
Page 1 of 1

MATERIAL TAGGING INSTRUCTIONS

PEG PACKAGE NUMBER: \_\_\_\_\_

TIIC or P/Ns \_\_\_\_\_

TAGGING INSTRUCTIONS:

After the completion of an acceptable receipt inspection the material shall be tagged with the following identification:

QA LEVEL \_\_\_\_\_

NOTE Normally one tag need be specified except when a 10 CFR 50.49 item is "CONDITIONALLY DEDICATED," or if "SPECIAL TAGGING" is required.

- 10 CFR 50.49  
(Items qualified for use in 10 CFR 50.49 host applications.)
- SAFETY-RELATED CONDITIONALLY DEDICATED  
(Items requiring a functional test prior to acceptance. A FUNCTIONAL TEST REQUIREMENT SHEET Appendix F - shall be attached to the material and verified. Appendix F shall be included in work document performing the functional test.)
- QUALITY RELATED  
(Items falling into the limited QA programs as described in the WBN Q-List.)
- SAFETY RELATED
- SAFETY RELATED - CGI
- SPECIAL TAGGING  
(PEG engineer to specify any specific requirements or restriction to be tagged on the material, as stated below, when checked)
  - ASME Section \_\_\_\_\_ Class \_\_\_\_\_
  - Approved for DCN \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

TAGGING SPECIFIED BY:

PEG Engineer \_\_\_\_\_ / \_\_\_\_\_  
Signature Date

TECHNICAL EVALUATION FOR PROCUREMENT  
OF MATERIALS AND SERVICES

APPENDIX H  
Page 1 of 1

ENGINEERING PROCUREMENT PACKAGE COVER SHEET

QA RECORD

QA LEVEL  I  II  III  0  
( ) SR ( ) NSR

(Tracking Number) PEG Package No. \_\_\_\_\_  
Item Description \_\_\_\_\_  
Supplements/Supersedes RIMS No \_\_\_\_\_

TOTAL PAGES: \_\_\_\_\_  
APPLICABLE TIICS OR REFERENCE NOS. (CHECK IF PMDS EXISTS): \_\_\_\_\_

PEG INPUT:  \_\_\_\_\_  
 TR  FPO  RD for IQT: \_\_\_\_\_  
 PI-005  2652  PEG 10606 FORM  
 ENGINEERING EVALUATION REQUEST

NE OUTPUT (ATTACHED OR REFERENCED)

- PROCUREMENT SPECIFICATION OF TECHNICAL AND QUALITY REQUIREMENTS
- SPECIFICATION OF CRITICAL CHARACTERISTICS FOR CGI DEDICATION (QA IID)
- FILE MAINTENANCE REQUIREMENTS  NEW TIIC REQUIRED  MULTI-SITE TIIC
- DCN MATERIAL EVALUATION/ALLOCATION
- ENGINEERING DISPOSITION/REVIEW
- OTHER

ENGINEERING EVALUATION SUMMARY (SHEETS ATTACHED)

- TECHNICAL EVALUATION FORM (A)  FUNCTIONAL TESTING REQUIREMENT (APPX) (F)
- ENGINEERING EVALUATION FORM (B)  EQUIVALENCY EVALUATION FORM (C)
- MATERIAL TAGGING INSTRUCTIONS (G)  QA LEVEL DETERMINATION FOR SERVICES (D)
- QC SPECIAL INSPECTION (E)  OTHER:

	RO	R1
PREPARED BY:	PEG ENGINEER DATE	PEG ENGINEER DATE
DESIGN VERIFIER	INDEPENDENT REVIEWER DATE	INDEPENDENT REVIEWER DATE
REVIEWED/ APPROVED BY:	PEG MANAGER DATE	PEG MANAGER DATE
REVIEWED/ APPROVED BY:	QUALITY ASSURANCE DATE	QUALITY ASSURANCE DATE
RIMS NUMBER		

Tennessee Valley Authority  
Watts Bar Nuclear Plant

PROCUREMENT MASTER DATA SHEET

1  
FILE NO.

PAG RIMS NO. 2

PEG PKG NO. 3

EXTERNAL REORDER NOTES

4  
QA LEVEL

ITEM INFORMATION

ITEM NAME: 5  
ITEM DESCRIPTION: 4

QUALITY ASSURANCE PROGRAM [ ] N/A  
[ ] 11056 WESTINGHOUSE WCAP 9245  
[ ] 11058 QA1 ASME NCA 3800  
[ ] 11059 QA1 ASME NCA 4000  
[ ] 11061 QA1 N45.2 SUPPLIED 13  
[ ] 11062 QA1 N45.2 MFD/SPLY  
[ ] 11063 COMMERCIAL GRADE  
[ ] OTHER NOTES:

SUBMITTALS AND DOCUMENTATION [ ] N/A  
[ ] 14050 DOCUMENTATION/TEST REPORTS  
[ ] 14199 COC TO CONTRACT 17  
[ ] 14156 COC TO ORIG. TVA CONTRACT  
[ ] 14194 WESTINGHOUSE 54114-01  
[ ] OTHER NOTES:

MANUFACTURER PART NUMBER  
1: 7 8  
2:  
3:  
4:

EXCEPTIONS/NONCONFORM/RIGHTS OF ACCESS [ ] N/A  
[ ] 12050 VENDOR EXCEPTIONS  
[ ] 12051 DO NOT SUBSTITUTE MATERIAL  
[ ] 12052 DO NOT SUBSTITUTE ITEM 14  
[ ] 12054 NONCONFORMANCE  
[ ] 12056 RIGHTS OF ACCESS  
[ ] OTHER NOTES:

IDENTIFICATION AND MARKING [ ] N/A  
[ ] 15050 MARKING (QA1)  
[ ] 15052 UL/FM LISTED MARKING 18  
[ ] 15053 MATL SPEC MARKING  
[ ] 15057 MARKING (NOW QA1)  
[ ] OTHER NOTES:

INTENDED END USE/UNID: 9

CODES/STANDARDS/SPECIFICATION 15 [ ] N/A  
[ ] 13050 CWES/SPECIFICATIONS  
[ ] 13051 ORIGINAL IVA CONTRACT  
[ ] 13055 IVA SPECIFICATIONS  
[ ] OTHER NOTES:

PACKAGING/SHIPPING/HANDLING/STORAGE [ ] N/A  
[ ] 16050 PACKING ANSI LEVEL A  
[ ] 16055 PACKING ANSI LEVEL B  
[ ] 16056 PACKING ANSI LEVEL C 19  
[ ] 16057 PACKING ANSI LEVEL D  
[ ] 16051 PACKING COMMERCIAL GRADE  
[ ] 16061 S/L; STORAGE; MAINTENANCE  
[ ] OTHER NOTES:

MAIL LIST: 10 [ ] N/A COMMODITY CODE: 11

VENDOR'S NO: 12  
PROPOSED SOURCE:

IVA EXTERNAL ADMINISTRATIVE NOTES [ ] N/A  
[ ] X1051 MSDS (ASBESTOS)  
[ ] X1052 MSDS (HAZARDOUS MATERIAL) 16  
[ ] X1055 ASBESTOS STATEMENT  
[ ] X1069 10CFR21 APPLICABILITY  
[ ] OTHER NOTES:

EXTERNAL ATTACHMENTS 20 [ ] N/A  
[ ] SPECIFICATION  
[ ] FOREIGN MATERIAL MEMO  
[ ] OTHER EXTERNAL ATTACH:

AUTHORIZATION SIGNATURE

PREPARED BY: 29  
ENGINEER DATE

CHECKED BY: 32  
INDEPENDENT REVIEWER DATE

APPROVED BY: 33  
PEG MANAGER DATE

APPROVED BY: 34  
QUALITY ASSURANCE DATE

FIRST VERIFICATION REVIEW EXPIRATION PMS RIMS NO. CHECKED BY:

30 31 35

SSM/INITIAL (ENG) DATE

SECOND VERIFICATION SIGNATURE DATE



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## ENTRIES FOR PROCUREMENT MASTER DATA SHEET

NOTE: Procurement Master Data Sheets (PMDS) for QA level 0 items do not require a RIMSed PEG package.

1. TIIC Number.
  - TVA Item Identifier Code - the standard unique identifier used to reference the item of supply which has been described and entered on the MAMS material data base.
  - TIIC number in two locations, upper right of Page 1 and Page 2.
  - Do not make PMDS if TIIC is to be killed.
  - Do not make PMDS if new TIIC and number is not assigned.
2. PEG package RIMS number which is used as the technical basis for this PMDS.
  - (Enter "Not Required" for QA level 0 PMDS items.)
3. PEG package number, applicable to the RIMS number in entry 2 (i.e., tracking number).
4. Quality Assurance level (I, II, III, or 0).
  - If PEG package has QA level IID, then enter "IID."
  - Two locations, upper right Page 1 and Page 2.
5. Noun name.
  - Unique name in TVA's glossary of material and equipment (i.e., bolt, fuse, etc.).
6. Item description (long description).
  - Descriptions of "item's specification data" see M388 screen for latest.
7. Manufacturer.
  - Shall be the supplier or manufacturer establishing part number listed in entry 8 (as applicable).
8. Part number.
  - Number assigned by supplier or manufacturer to identify their product.
9. UNID where the item could be used based on PEG package (as available).

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## ENTRIES FOR PROCUREMENT MASTER DATA SHEET

10. Mail List (required field for QA I, II, and III with vendor QA program requirements).
  - Mail List number will be used to identify vendors that have the appropriate QA program approved by TVA for the item.
11. Commodity Code (required for all items).
  - Standard TVA commodity code from MAMS which defines categories of similar items.
12. Vendor's ID code and/or proposed source.
  - Unique number assigned by TVA to identify a specific vendor.
13. Quality Assurance program required.
  - Select the program which purchases the commodity to the correct QA program requirements needed.
14. Exceptions, Nonconformance, and Right of Access requirements.
  - Imposes requirements which are of regulatory nature and required to fulfill program selected.
  - Use Notes T2054 and T2056 for all QA I and any other QA level with QA program imposed.
  - Additional notes may be used but not always needed (e.g., T2051 & T2052, Note T2050 requires review for exceptions).
15. Codes, Standards, and Specification requirements.
  - Check with vendor for availability of original contract or include in package as external attachment.
  - Note T3055 is normally used for TVA unique specifications (e.g., PF-Specifications).
16. TVA's external administrative note requirements.
  - If the item(s) requires(s) a MSDS, use Note X1054, always ask for a new MSDS, safety and use requirements may have changes.
  - Use Note X1071 for lot and batch typed item(s) when testing by TVA is required.
  - Note X1069 should be used for all QA I "10CFR21 shall not be required for commercial grade items and procurements."

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## ENTRIES FOR PROCUREMENT MASTER DATA SHEET

17. Submittal and documentation requirements (COC, etc.)
  - The PMDS has only the most frequently used Notes, additional Notes may be required "Do not limit your selection to just the Notes on the PMDS."
18. Identification and marking requirements.
19. Packaging, shipping, handling, and storage requirements for vendor.
  - Ensure packaging and shipping level agrees to the product or QA level.
20. TVA's External Attachments (e.g., PF Specifications, etc.).
  - Listing of attachments required to be in the contract to procure the item.
  - List National Standards as attachments.
  - IQT may have standards within text but not listed as External Attachment. (IQT may not be used for purchase.)
21. TVA's internal administrative notes.
  - These notes are used for administrative direction to Materials and Procurement, QC, and Nuclear Stores. (All notes in this section will be printed and become part of the contract.)
22. TVA's internal attachment (critical step).
  - This area is used to denote all internal attachments required to receive, inspect and install the item(s).
  - If an internal attachment is required, the attachment shall be in the package and a copy attached to the PMDS.
  - QC Special Inspection and Functional Test Sheet or any other required attachment must be included in the PMDS page number. Attachments that are referenced and have their own page system does not need to be paginated with PMDS.
23. Notes to Nuclear Procurement Services (NPS).
  - This area is used to give direction and recommendations to NPS. These directions will not always become part of the contract.
  - N1082 note is required when an external attachment is required.
  - Note T1052 will be used by NPS when the item is to be purchase via the IQT.

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## ENTRIES FOR PROCUREMENT MASTER DATA SHEET

## 24. Tagging and storage level requirements.

- Select the quality/safety-related condition for the item.
- Internal storage level/requirements for Nuclear Stores ANSI N45.2.2 level (A, B, C, D).
- If 10CFR50.49 is marked for the item, no other determination is required (e.g., safety-related).

## 25. Additional External Notes.

- This area shall be used for additional External Notes (Notes for Vendor) which have not been incorporated into DS M18.2.18.

## 26. Additional Internal Notes (receipt inspection required).

- This area shall be used for additional Internal Notes (Notes for TVA) which have not been incorporated into DS M18.2.18 or internal administrative directions to Nuclear Stores, Procurement, (M&P).

## 27. Special tagging instructions to Stores.

- Denote all special tagging requirements or N/A.
- Special notes shall be used to limit or qualify the use of the item to specific applications. (For example, to prevent inadvertent use of a QA level III electrical item in a safety related application, use special tagging Note "NOT FOR USE IN CLASS 1E CIRCUITS.")

## 28. Design Standard-M18.2.18 revision number.

- Revision of design standard at the time of preparation.

## 29. Preparer's signature and date prepared.

## 30. Preparer's social security number and initials.

## 31. Expiration date of PMDS (preparer to date two years from date prepared).

- The date the PMDS expires with out reverification.

## 32. Independent reviewer's signature and date reviewed.

## 33. PEG manager's signature/initial or his designee.

## 34. Quality Assurance's signature and date (as required by QA program, N/A, initial and date if not required by QA program).

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## ENTRIES FOR PROCUREMENT MASTER DATA SHEET

35. RIMS number for PMDS after all approvals.

PEG clerk submits original PMDS to Materials and Procurement (M&P), places copy in PMDS files in TIIC order, sends copy to RIMS.

NOTE: PEG package identified in entry 2 is not required to be submitted to M&P. If a PEG package does not exist, both the PMDS and the PEG package may be prepared, reviewed and approved at the same time. It should be emphasized that the PMDS and the PEG package are two distinct packages with different RIMS numbers. The PMDS is intended to be the summary or information from the PEG package to procure the item on a when-needed basis by M&P.

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Page 1 of 6

## METALLIC MATERIALS UPGRADE

## 1.0 PURPOSE

This Appendix provides instructions to upgrade metallic materials to meet requirements for use in ASME Code Section III Application.

## 2.0 SCOPE

This Appendix is applicable to metallic materials used in TVA Class A (ASME Class 1), B (ASME Class 2), C (ASME Class 3), and D (ASME Class 3) systems at Watts Bar Nuclear Plant (WBN).

## 3.0 INSTRUCTIONS

## 3.1 Review, Evaluation, and Preparation of CMTRs

## PEG

- 3.1.1 DETERMINE the end-use requirements for material by reviewing drawings, bill of materials, or various other forms of Design Output Documents (DOD) and establish the Code of Record.
  - 3.1.2 REVIEW the MTR, CMTR, or COC, as applicable, and the original procurement document to ensure that the material to be used meets the requirements of the intended end-use application. G-62, Attachment 1 provides the material QA documentation requirements for various product forms. A CMTR may be substituted for a COC in all instances where Attachment 1 required a COC. UPGRADE materials per Section 3.2 or 3.3. PREPARE CMTRs (Form 1) as required.
  - 3.1.3 INITIATE a Significant Correction Action Report (SCAR) or Problem Evaluation Report (PER) for material that has been previously installed that does not meet its intended application.
  - 3.1.4 SPECIFY performance of required operations and examinations not performed by the material manufacturer or supplier. May REQUEST the Site Quality Manager (SQM) to perform the required examinations, as practical.
- 3.2 Upgrade of Material Previously Purchased to ASME QA Specifications

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PEG

3.2.1 REVIEW original procurement document and ENSURE the SA specification is identical to or more stringent than the Code of Record SA specification. The G-29 Standard Material's Specification Manual includes editions and addenda of ASME material specifications which have been evaluated to the requirements of NA-1140 for use in 1971 Edition, summer 1973 Addenda construction. The Manual contains both totally acceptable and conditionally acceptable materials, depending on the edition and addenda to which the material was manufactured.

A. SPECIFY performance of any required additional examinations, tests, or heat treatment operations to comply with the ASME Section II Code of Record SA specifications per paragraph 3.1.4.

3.2.2 VERIFY that the ASME Section III certification requirements of NX-2130, the special testing requirements of NX-2300, and the inspection requirements of NX-2500 have been performed or SPECIFY these operations and examinations to be performed.

3.2.3 DOCUMENT the upgrade on Form 1 and this SSP.

3.3 Upgrade of Material Not Purchased to ASME QA Specifications

NOTE Material previously installed and certified on an N-5 date report has been accepted per the Heat Code Traceability Corrective Action Program Plan, RIMS B26 90 0212 300.

PEG

3.3.1 SPECIFY examinations, tests, or heat treatment operations to comply with the ASME Section II Code of Record SA Specification for each piece.

3.3.2 REQUEST that the ASME Section III certification requirements of NX-2130, the special testing requirements of NX-2300, and the inspection requirements of NX-2500 are performed on each piece.

3.3.4 DOCUMENT the upgrade for Form 1.

3.4 Material Requirements for Use As Welded Attachments

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## PEG

- 3.4.1 **REFERENCE** G-62 Appendix A & B that contains acceptable ASTM material specifications which have been evaluated to the requirements of the 1971 Edition, Summer 1973 Addenda, for use as pressure boundary welded attachment material on ASME Section III, Class 2 and 3, piping and components. This material need not be upgraded or certified to ASME Section III; however, a CMTR or certification from the material manufacturer is required, attesting that the attachment material was manufactured in accordance with the ASTM material specification.
- 3.4.2 **ENSURE** material used as welded attachments on ASME Section III Class I piping and components are upgraded and certified per this appendix.

## 3.5 Documentation of Material Upgrade

## PEG

- 3.5.1 **ATTACH** a copy of the supplier MTR, CMTR, and/or the TVA CMTR (Form 1) and **DOCUMENT** all operations performed by TVA to upgrade material on a TVA CMTR and **ATTACH** documentation to the CMTR.
- 3.5.2 **FORWARD** all TVA CMTRs to the SQM for review.
- 3.5.3 **DOCUMENT** NE review and approval by the PEG package and include the TVA CMTR.

## 3.6 Authorized Inspection Agency Involvement (AIA)

## AIA

- 3.6.1 **REVIEW** TVA CMTRs for verification of code compliance.

## 3.7 Marking of Material

## PEG

- 3.7.1 **Ensure** all material upgraded by this Appendix is marked per the requirements of SSP-10.04.

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Page 4 of 6  
FORM 1

TENNESSEE VALLEY AUTHORITY  
CERTIFIED MATERIALS TEST REPORT

Heat No. (1) \_\_\_\_\_ Contract (2) \_\_\_\_\_ Description (3) \_\_\_\_\_

Heat Analysis

Item (4) \_\_\_\_\_ Item (4) \_\_\_\_\_

Mechanical Tests: _____	Mechanical Tests: _____
Tensile strength: _____	Tensile strength: _____
Yield strength: _____	Yield strength: _____
Elongation (2"): _____	Elongation (2"): _____

Nondestructive Examination (5) Nondestructive Examination

Product Analysis Product Analysis

Other Other

The material was purchase to material specification (6) \_\_\_\_\_, grade (6) \_\_\_\_\_, class (6) \_\_\_\_\_. We accept the manufacturer's melting practice and heat analysis.

The material meets the requirements of material specification (7) \_\_\_\_\_, grade (7) \_\_\_\_\_, heat-treated condition (7) \_\_\_\_\_ of the (7) \_\_\_\_\_

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FORM 1 COMPLETION INSTRUCTIONS

7. This information is from the 1971 Edition, Summer 1973 Addenda of ASME Code Section II for the upgraded material specification required for the end-use application.
8. 1971 Edition, Summer 1973 Addenda.
9. The information required is the code class the material is being upgraded to, 1971 Edition, Summer - 1973 Addenda.
10. The certificate number is N-1480-1.
11. The certificate expiration as of May 12, 1991, expires August 6, 1994.

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## FORM 1 COMPLETION INSTRUCTIONS

**NOTE 1** One form cannot be used to upgrade two different heat numbers, material from two different contracts or material with the same heat numbers but different descriptions. Separate forms must be completed.

**NOTE 2** Any spaces that are "not applicable" shall be NA'd, initialed and dated.

1. **RECORD** the heat number of the item.
2. **RECORD** the complete original contract number, RD number, and transfer requisition number as applicable.
3. **RECORD** the material description (not the material specification), i.e., 6" Sch. 40 pipe, 1'2" 6000 lb. tee, etc.
4. This space is used to show the quantity of material being upgraded and the new heat number (if applicable). If all of the material received on the contract is being upgraded, then write "All" in the space. A new heat number may be designated when all the material is upgraded but must be if only a portion is. The new heat number should utilize the existing heat number with a numerical or alphabetical suffix. (A review must be performed to ensure the new number is unique.) There are spaces to upgrade two separate pieces of the same heat; if only one is used, then N/A the other one.
5. Information in this section is the testing requirements for the material to meet the upgraded material specification class from ASME Section III. If testing from the existing vendor, MTR, CMTR, or COC meets the upgraded end-use requirements and the vendor and contract had proper QA requirements, then write "See Attached" vendor (MTR, CMTR, or COC as applicable) in the appropriate spaces. If no testing was required for the existing material and none is required to upgrade, then write N/A in the space.

**NOTE** When upgrading material from other classes to Class 1, additional NDE requirements (added to code after the 1971 Edition Summer 1973 Addenda) must be performed.

6. The information required in these spaces must be obtained from the original contract specifications (how it was actually purchased).

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## FORM 1 COMPLETION INSTRUCTIONS

7. This information is from the 1971 Edition, Summer 1973 Addenda of ASME Code Section II for the upgraded material specification required for the end-use application.
8. 1971 Edition, Summer 1973 Addenda.
9. The information required is the code class the material is being upgraded to, 1971 Edition, Summer - 1973 Addenda.
10. The certificate number is N-1480-1.
11. The certificate expiration as of May 12, 1991, expires August 6, 1994.

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Procurement Request (PR) Form

PROCUREMENT REQUEST FORM

RINS ACCESSION NUMBER (1) (by PEG)

TO: \_\_\_\_\_, LEAD PROCUREMENT ENGINEERING MANAGER, NTL-1C-WBN

FROM: (2)

DATE: (3)

SUBJECT: PROCUREMENT OF ITEMS AND/OR MATERIALS FOR WATTS BAR NUCLEAR PLANT

PR NUMBER: (4) REVISION: \_\_\_\_\_

Check as required: (5)

[ ] Please take the necessary action to procure the item(s) and/or material as identified herein. Return a copy of this PR as acknowledgement of your receipt within 10 working days.

[ ] This PR is unscheduled

[ ] This PR is behind schedule

[ ] This PR is for emergency purchase. (see item 10 on PR)

[ ] This PR material/service is scheduled to be approved for issue by: \_\_\_\_\_ need date

[ ] Other:

(7) cc (Attachment): DCN PACKAGE INITIATOR (6) \_\_\_\_\_ NE - LEAD ENGINEER

(8) TO:

(9) FROM: \_\_\_\_\_, LEAD PROCUREMENT ENGINEERING MANAGER, NTL-1C-WBN

(10) DATE:

Check as required: (11)

[ ] We acknowledge this procurement request, a PEG package is being processed.

[ ] This PR is being returned per the following remarks: \_\_\_\_\_

(12) \_\_\_\_\_ Procurement Engineer Assigned

(13) \_\_\_\_\_ LEAD PROCUREMENT ENGINEERING MANAGER

(14) cc (Attachment): RINS, ET SL P-K

MODIFICATIONS MANAGER: DCN PACKAGE:

TECHNICAL EVALUATION FOR PROCUREMENT  
OF MATERIALS AND SERVICES

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Procurement Request (PR) Form

PROJECT WATTS BAR NUCLEAR PLANT		UNIT(S) <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	DATE	PR NUMBER AND REVISION
PREPARED BY AND EXTENSION		CHECKED BY AND EXTENSION		P2 ACTIVITY NUMBER : PWL
WORK ACTIVITY DESCRIPTION				
1 END USE (EQUIPMENT UNID AND DESCRIPTION IF APPLICABLE)				
A. BUILDING OR AREA (INCLUDE ROOM NOS.)		C. COLUMN LINES		
B. ELEVATION		D. SYSTEMS		
2 ATTACHMENT(S) <input type="checkbox"/> PEG 10606 CONTINUATION SHEET INCLUDED		<input type="checkbox"/> N/A		
Others:				
3 THIS PROCUREMENT IS FOR (check as applicable): <input type="checkbox"/> COMPLETE END USE (HOST) EQUIPMENT (SHOWN IN SECTION 1 ABOVE) <input type="checkbox"/> SUBCOMPONENTS/PARTS FOR THE END USE (HOST) EQUIPMENT <input type="checkbox"/> SERVICES RELATING TO END USE (HOST) EQUIPMENT <input type="checkbox"/> OTHER:				
4 DCM NO. AND REFERENCE DOCUMENTS		<input type="checkbox"/> N/A	CONSTRUCTION/MODIFICATIONS REFERENCE NUMBERS	<input type="checkbox"/> N/A
5 DESIGN BASIS FOR END USE (HOST) EQUIPMENT				
A. SAFETY CLASSIFICATION: <input type="checkbox"/> SAFETY RELATED <input type="checkbox"/> NOT SAFETY RELATED		D. ASME SECTION III CLASS <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> N/A		
B. QA STATUS: <input type="checkbox"/> 10 CFR 50 APPENDIX B <input type="checkbox"/> LIMITED QA PROGRAM <input type="checkbox"/> NOT QUALITY RELATED		TVA PIPING CLASS _____ <input type="checkbox"/> N/A		
C. SEISMIC QUALIFICATION REQUIRED: <input type="checkbox"/> NO (NON SEISMIC)		E. IEEE CLASS 1E <input type="checkbox"/> YES <input type="checkbox"/> NO (IF YES ATTACH ENVIRONMENTAL SHEET)		
<input type="checkbox"/> YES BY TVA <input type="checkbox"/> IN DCM PRG <input type="checkbox"/> BY VENDOR		<input type="checkbox"/> SEISMIC CAT. I <input type="checkbox"/> ACTIVE, MUST OPERATE BEFORE SSE <input type="checkbox"/> DURING SSE <input type="checkbox"/> AFTER SSE		<input type="checkbox"/> SEISMIC CAT. I(L) <input type="checkbox"/> I(L)-A MUST RETAIN POSITION & PRESSURE <input type="checkbox"/> I(L)-B POSITION ONLY
6 APPLICABLE DESIGN CRITERIA, STD, OR PROGRAM FOR HOST EQNT.		<input type="checkbox"/> 10CFR50.49	<input type="checkbox"/> MECHANICAL EQ	<input type="checkbox"/> N/A
7 IDENTICAL OR SIMILAR PROCUREMENTS WERE PURCHASED ON:		<input type="checkbox"/> N/A		
CONTRACT NO.		RIMS OR FILE NO.	PROJECT:	
8 DESIGN BASIS VERIFIED BY (for NE cross discipline reviews or if PR is initiated outside NE (i.e. HODS) NE ORG./SIGNATURE(S)/INTL(S).		<input type="checkbox"/> N/A		
9 SHIP DESTINATION WATTS BAR NUCLEAR PLANT	SOLE SOURCE VENDOR NAME, CITY AND STATE		<input type="checkbox"/> N/A	OTHER IF NOT A VENDOR <input type="checkbox"/> N/A
10 REMARKS (i.e. Justification for sole source vendor, or emergency purchase, instructions, clarifications, etc.)				
11 Budget authorization (Project Mgr., account no. for material, or other accounting designation)				
12 SCHEDULE DATES		NEED DATE	EXPECTED DATE BY PEG OR M&P	
PEG PACKAGE ISSUE DATE (RELEASED TO M&P OR PURCH.)		_____ N/A _____	_____	
AWARD OF CONTRACT		_____ N/A _____	_____	
VENDOR TECHNICAL DATA SUBMITTALS		_____	_____	
DELIVERED TO SITE / APPROVED FOR ISSUE (AFI)		_____ / _____	_____ / _____	

TECHNICAL EVALUATION FOR PROCUREMENT OF MATERIALS AND SERVICES

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Procurement Request (PR) Form

PEG 10606 CONTINUATION SHEET PAGE \_\_\_ OF \_\_\_

USE THIS SHEET TO INCLUDE MULTIPLE MATERIAL/SUBCOMPONENT ITEMS TO THE PROCUREMENT REQUEST PR (PEG 10606). THIS SHEET CANNOT STAND ALONE, THE PR PROVIDES THE DESIGN BASIS FOR THE END USE (HOST) EQUIPMENT.

PROJECT WATTS BAR NUCLEAR PLANT		UNIT	{ 10 11 12 }	DCH	DATE	PR NUMBER AND REVISION	
PREPARED BY AND EXTENTION		CHECKED BY AND EXTENSION			P2 ACTIVITY NUMBER	PHL	
WORK ACTIVITY DESCRIPTION							
END USE (HOST) EQUIPMENT UNID AND DESCRIPTION AS APPLICABLE							
A. BUILDING OR AREA (INCLUDE ROOM NOS.)				C. COLUMN LINES			
B. ELEVATION				D. SYSTEMS			

ITEM NO.	ITEM DESCRIPTION (Include reference to data sheets, mark No., TIIC, codes, standards, design output documents, etc.)	QTY	UNIT	ROP	ROQ
3	4	5	6	7	8

REMARKS: 9

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## PROCUREMENT REQUEST (PR) FORM

## ENTRIES TO FRONT PAGE OF PR FORM

The procurement request (Form PEG 10606) is to be prepared as described below. Since the procurement request is a document which translates the design basis into the procurement document, it must be handled in accordance with the A/Es design control measures, which are consistent with NEP-5.1 and 5.2. The original of the procurement request will be processed and submitted as described below; if part of an ECN modification package, a copy of the procurement request is to be contained in the package.

(Block number refers to the form on the Appendix.)

Page 1 of the PR will be used to transmit the PR from NE to PEG.

- Block 1 - RIMS number to be placed by the procurement clerk (PEG) upon acknowledgement of the procurement request (this step is performed last).
- Block 2 - The name and location of the lead engineer of the appropriate engineering group requesting material (could be a non-NE organization).
  - Also responsible for preparation and review of PR form Page 2.
- Block 3 - Date after all applicable entries/reviews are complete for Page 2 of PR.
- Block 4 - PR number, as obtained from the Procurement clerk (PEG secretary).
- Block 5 - Check appropriate box, scheduling refers to P2 schedules.
- Block 6 - TVA's NE lead discipline engineer, or his designee, signature after completion of Page 2 of PR form. The signature approves the design verification of the PR package.
- Block 7 - Distribution is to the originator and to the lead engineer (responsible for DCN) for inclusion to the DCN package.
- Block 8 - Name and location of lead engineer that initiated PR.
- Block 9 - Lead Procurement Engineer, MTL 1C-WBN
- Block 10 - Date when all interfacing and issues have been resolved and PEG acknowledges request of PR or date when when formal return of PR is submitted due to inability to proceed with procurement.

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## PROCUREMENT REQUEST (PR) FORM

- Block 11 - Identify acknowledgement or inability to proceed with procurement (provide reasoning in remarks section for the latter).
- Block 12 - PEG engineer assigned to provide response to PR.
- Block 13 - PEG lead engineer or designee.
- Block 14 - PEG clerk to place RIMS number in Block 1 and submit copies at minimum to RIMS; the modifications manager, and lead engineer responsible for DCN (if applicable).

## ENTRIES TO SECOND PAGE OF PR FORM

- TOP SECTION - Identify the applicable unit numbers.  
- Enter date PR is initiated by preparer.  
- Enter PR number and revision obtained from the procurement clerk.  
- Preparer's signature and telephone number (also, print name).  
- Independent design verification signature on "checked by" block and telephone number (also print name). If PR is initiated by a non-NE organization, then the "checked by" may be in the same organization and design verification signature is placed in Section 8 ("design basis verified by" block).  
- Identify the P2 activity closely related to this PR and include the PWL code, preparation of PEG package will be charged to this project. Describe this activity in a short statement.
- SECTION 1 - Identify the end use equipment and location. Equipment is normally identified by UNID; if UNIDs are not assigned, describe the equipment. For location include building and room number along with elevation and column line. Identify systems applicable to this PR (refer to Section 3 to identify UNID system/equipment/subcomponent level selected).
- SECTION 2 - Identify all attachments such as the PEG 10606 continuation sheet (for additional material/subcomponents when the same design basis as identified in the PR is applicable), design requirements, drawing, seismic or EQ parameters, copy of DCN (if helpful to identify/describe equipment), key vendor interface documents, or any documentation that would assist in procurement of the PR material.

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PROCUREMENT REQUEST (PR) FORM

- SECTION 3 - Identify what level of system, component, part or services is being procured by this PR. Is this PR procuring equipment that can be/will be identified as a whole device with EQIS UNID (i.e., complete pump/skid valve/instrument)? It should be noted that operators and, at times, motors with operators have specific UNIDs and can be considered as a whole device. The best method to determine what host equipment level UNID to use, pick the UNID that best represents the seismic or EQ qualified equipment configuration (or equipment supplied by vendor as qualified to IEEE 323/344).

If the UNID or equipment description provided in Section 1 is being procured, then check procurement is for complete end use (host) equipment. If the UNID or equipment description identified in Section 1 is not what is being procured but rather subcomponents parts (which may also have lower tier UNIDs), then identify procurement is for subcomponents/parts of end use (host) equipment. If services are being provided, then the equipment identified in the top section could be a typical UNID; identify procurement is for services. If the above conditions do not apply, identify what this PR procurement is for (example, transfer from SQN to WBN, PEG engineering evaluation or special requests, etc.).

- SECTION 4 - Identify applicable DCNs or design documents most closely relating to this PR. Also include change control package number, if applicable. If PR is initiated by MODS, use the area reserved for MODS to reference the work document, when applicable.

- SECTION 5 - Establish the design basis from design documents as it relates to the UNID or description in Section 1. If a limited QA program is applicable, clearly identify which limited QA program is applicable, for example:

Radiological Control, Emergency Preparedness, Nuclear Plant Security, radioactive material shipment, special Nuclear Material management, offsite safety review, fire protection, radwaste, seismic category I(L) (in the seismic category entry, identify I(L)-A or I(L)-B), or non SR ATWS equipment.

The Civil Engineering group should be contacted for the need for seismic analysis or test reports. Like for like replacement parts/subcomponents do not require seismic analysis if the host equipment already exists and is already qualified for IEEE 323.

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PROCUREMENT REQUEST (PR) FORM

SECTION 5  
(Continued)

Identify if host equipment is seismic category I, I(L)-A, I(L)-B or non-seismic. Seismic category I(L) equipment may require seismic analysis based on secondary safety functions, (i.e., failure of non-seismic equipment may jeopardize category I equipment functions).

For example, seismic category I(L)-A requires equipment to retain position and to retain pressure boundary, I(L)-B requires position retention only. Enter category I(L)-A or I(L)-B as applicable to the above. It should be understood that even though seismic category I(L)-A and I(L)-B are part of the limited QA program (quality related, as defined by the Q-List), the function required of these categories is a secondary safety function and should not be misconstrued as non-safety related (as it could be misinterpreted by the Q-List definition of "quality related").

Enter seismic category "non seismic" for equipment that is not required to be seismically qualified.

Provide remaining entries as they relate to the design basis criteria established by design.

SECTION 6

- Identify applicable standard/codes such as ASME Section XI or VIII, ANSI B31.1, etc. or TVA programs applicable to UNID or description in Section 1. If 10CFR50.49 or Mechanical EQ is applicable then NE-EQ interface must be complete.

For electronic equipment state if EMI qualification is required per SS-E18.14.01.

If 10CFR50.49, as practical procure devices which are already covered by an existing EQ binder. Identify IEEE 323-74 qualification level I (QL-I) and note "EQ binder No. \_\_\_\_\_ envelopes the purchase item environmental conditions" in the remarks section.

SECTION 7

- Identify contracts or reference documents which describes a previous purchase of similar or identical equipment as being procured or for equipment identified on Section 1. If an IQT contract exists, also include this contract number.

SECTION 8

- If PR is initiated by NE, then NE cross discipline review signatures are entered here. If the PR was initiated and checked by non-NE organization, then the responsible lead NE discipline signs here showing design verification and acceptance. Enter organization (i.e., LEE)/signature/and initial.

APPENDIX K  
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## PROCUREMENT REQUEST (PR) FORM

- SECTION 9 - Identify vendor name, city and state that has been known or could supply the material needed or identify vendor which must be the sole source for obtaining the material. A technical justification must be provided to limit source of procurement to one vendor. For example, this vendor is relied upon to maintain complete equipment qualification in our design basis documents, purchase from other vendors will invalidate equipment qualification without further re-design.
- SECTION 10 - Identify any special comments, instructions, justifications (i.e., sole source or emergency purchase) needed for any section above.
- SECTION 11 - Authorization number or accounting designation to be used for material purchase cost.
- SECTION 12 - Enter schedule dates on when vendor documentation is needed for review and when material is scheduled to be on site. Always include time for processing by Nuclear Stores and QC before material is schedule for use in the plant (approved for issue). PEG with input from M&P will provide expected dates for PEG package release date, award of contract, submittal of technical data, delivery to site, and approval for issue.

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## ENTRIES TO PEG 10606 CONTINUATION SHEET

- SECTION 1 - Enter same information as that listed in second page of PR top section. Also include the DCN applicable for material to be listed in this continuation sheet (the DCN may or may not be the same as in the PR form).
- SECTION 2 - Identify the end use equipment and location similar to second page of PR Section 1. UNIDS or description are normally the same but differences could be present if multiple equipment is being addressed having the same design basis as described in the PR (for example, a lower tier UNID could be identified here such as a motor UNID [1-MTR-XXX-XX] from an operator listed in the PR as 1-MVOP-XXX-XX; the PR could have also listed the complete motor operated valve 1-VLV-XXX-XX).
- SECTION 3 - Enter a sequential number for each line item required for purchase. Ensure that the design basis for each item listed is the same and applicable to the design basis identified in PR.
- SECTION 4 - Identify each line item required for purchase reference applicable data sheets, drawings, TIIC numbers, any specific design output document, etc.
- SECTION 5 - Enter how many are needed.
- SECTION 6 - Enter how to measure the quantity; for example:  
° if purchasing 3 instruments, the unit is (1 each or 1 EA)  
° if purchasing 20 feet of pipe, the unit is (1 FT)  
° if purchasing 10 1-gallon tanks, the unit is (1 GAL)  
° if purchasing 3 5-gallon tanks, the unit is (5 GAL)
- SECTION 7 - Reorder point entry is made when this item is required to be stocked. If so, indicate how many are needed in stock at all times.
- SECTION 8 - Reorder quantity entry is needed when item is required to be in stock. Enter the quantity that should be ordered everytime stock levels fall below the reorder point.
- SECTION 9 - Enter any needed comments, clarifications, instructions, etc.

TECHNICAL EVALUATION FOR PROCUREMENT  
OF MATERIALS AND SERVICES

APPENDIX L  
Page 1 of 1

STOCK MATERIAL VERIFICATION

PEG PACKAGE NO. \_\_\_\_\_

TIIC: \_\_\_\_\_ MFR/PART NO. \_\_\_\_\_

QA LEVEL: \_\_\_\_\_ COMMODITY CODE: \_\_\_\_\_

ITEM DESCRIPTION: \_\_\_\_\_

INSTRUCTIONS: Visually verify data below as required for purpose of review.  
If data not required for review, check NOT REQ. block.  
If no quantity found, enter 0.  
If shelf life OR any data is not applicable, enter N/A.  
Initial and date at bottom of column for each contract found.

NOT REQ'D DATA	CONTRACT 1		CONTRACT 2		COMMENTS
	MAMS	ACTUAL	MAMS	ACTUAL	
( ) DATE REC'D					
( ) BIN LOCATION					
( ) QUANTITY					
( ) SHELF LIFE	NUMBER	EXP. DATE	NUMBER	EXP. DATE	
( ) STORAGE LEVEL	REQ'D	ACTUAL	REQ'D	ACTUAL	
( ) HEAT/SERIAL NO.					
SPECIAL FEATURE					
SPECIAL FEATURE					
INITIALS & DATE					

RESOLUTIONS/REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPENDIX M  
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## QA LEVEL 0 EXEMPTION LIST

When ordering items on the following list, PEG review of the requisition is not required. The following items are considered QA level 0.

1. Administrative, training, communication. tools, tool room, first aid, office, janitorial and warehouse equipment and associated supplies.
2. Transportation vehicles and ground maintenance equipment including lawnmowers, tractors, rakes, shovels, hoes, agricultural supplies, etc., spare parts, fuel and services associated with these items.
3. Reference and training material including textbooks, handbooks, standards, professional publications, reports, technical manuals, and operating manuals.
4. Clothing and protective clothing, including coveralls, hoods, overshoes, shoe covers, rubber gloves, cloth gloves, bubble suits, plastic suits, lab coats, and aprons.
5. Respiratory protective equipment, including self contained breathing apparatus, air purifying respirators, air line respirators, associated support equipment and spare parts, and refilling testing of bottles and tanks.
6. Laboratory equipment and accessories, chemical reagents, and standardized solutions, with the exception of chemical standards used for the preparation of calibration curves for Safety Related analyses and chemicals.
7. Expendable laboratory supplies including glassware, beakers, poly bottles, disposable containers, shipping cartons, plastic bags, hoses, stirrers and spatulas, and towels.
8. Health Physics expendable supplies, including signs, tags, labels, polybags, barrier rope, shielding materials, step-off pads, vapor barrier paper, sheet plastic, poly bottles, smears, air sampling media (filters and cartridges), planchets, batteries, etc.
9. Health Physic fixed and portable instrumentation, including accessories spare parts and calibration (not including primary and secondary NBS Standards) for the above, and response check sources.
10. Computer equipment, spare parts, and repair services for general office use computers (i.e., PCs).
11. Health Physics and Chemistry Consultant Agreements.
12. Laboratory services, well water sampling and analysis.
13. Meters and test equipment and associated spare parts, not to include calibration services.
14. Lumber, nails, wood screws, temporary structure building materials, and packaging materials.
15. Materials, parts, components, and services for the MPC, Office buildings, Office trailers, Administration Building, Training center, Personnel Services Building, Engineering Design Building, and other buildings outside the protected area.
16. Concrete, gravel, asphalt, sand, dirt, etc., for general use in non-safety related applications.

## REVISION LOG

<u>REVISION NUMBER</u>	<u>IMPLEMENTATION DATE</u>	<u>DESCRIPTION OF REVISION</u>
0	06/13/91	This Procedure supersedes AI-5.23 Technical Evaluation for Procurement of Materials and Services.
1	09/13/91	Minor revision to add source notes from WBEP 6.01 R6 to accommodate for engineering procedure changes (WBQ900129P, WBP890511PER, and WPPER910003).
2	11/04/91	Minor revision. Added Source Note for WBP890581PER in section 2.1.1. Replaced reference to deleted procedure numbering system, i.e. AIs to SSPs. Appendix I Typical Sample.
3	11/12/91	Minor revision. To clarify the need of verification of critical characteristics for third party qualifier procurement.
4	11/26/91	Minor revision. Added note after Section 2.1.1.E. Added Modifications Manager to PR acknowledgement copy distribution.
5	01/30/92	Minor revision. Editorial correction to text and forms for enhancement and clarifications throughout SSP. Added Appendixes K, L, M. Added recommendation from Audit Report SSA91114 to identify connection between critical characteristics and the item safety function for CGI dedication. (Reference RIMS T00911212875 memorandum from J. H. Garrity to T. E. Burdette.)

## SOURCE NOTES

- 1 ANSI N18.7 - 1976/ANS-3.2
- 2 ANSI N45.2.9 - 1974
- 3 ANSI N45.2.12 - 1976
- 4 TVA-NQA-PLN89-A
- 5 WBQ900129P
- 6 WBP890511PER
- 7 WBP890511PER
- 8 WBP890581PER