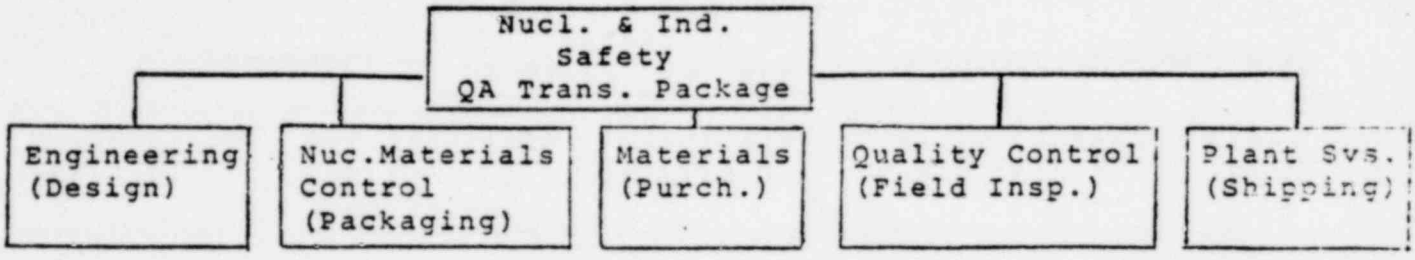
QUALITY ASSURANCE PROGRAM
UNC - NPD SHIPPING CONTAINERS
10 CFR 71 APPENDIX E

Rev. 1
October 10, 1979

I. Organization

Responsibility for the QA Program is retained and exercised by our company.

QA/QC functions shall be performed to implement appropriate elements of Appendix E to (a) assure that an appropriate quality assurance program is established and effectively executed and (b) verify such as by checking, auditing and inspections that activities affecting the safety-related functions have been correctly performed.



The above chart indicates the organization elements used in the control of the QA Program for transportation packages.

The responsibilities of each job function shown above are as follows:

Engineering - design of packages to meet requirements of 10 CFR 71 and the DOT.

Nuclear Materials Control - order transportation containers. Package contents.

Materials - purchase transportation containers.

Quality Control - perform any specified field inspection.

Plant Services - arrange for appropriate transportation and security. Load released packages.

Nuclear and Industrial Safety - review and audit transportation package functions of above noted departments for compliance to NRC license.

The Nuclear and Industrial Safety Manager shall have overall authority and responsibility for the Q.A. Program. The basic responsibilities of the NIS Department Manager are to assure effective and timely administration of the nuclear and industrial safety control and audit function of the Division; he establishes sound programs in compliance with appropriate NRC licenses and assures continued compliance with these official requirements through regular audit and thorough follow-up with responsible Division Management.

III. Design Control

Containers designs approved for use by DOT/NRC prior to January 1, 1979 or standardized by DOT (e.g., Title 49 listing) are deemed to have been designed in compliance with Appendix E per para. 10 CFR 71.51 (b).

Any new container design application shall set forth necessary design controls. Presently we do not expect to submit any new designs.

For existing shipping containers any modifications or repairs shall be in compliance with existing designs. Should any changes in design be required, we shall, at that time, submit design control procedures.

IV. Procurement Document Control

Procedures are established that clearly delineate the sequence of actions to be accomplished in the preparation, review, approval and control of original procurement documents or changes thereto.

Procurement documents shall identify:

1. Applicable 10 CFR 71, Appendix E requirements which must be complied with and described in supplier's QA Program.

2. The design basis technical requirements including the applicable regulatory requirements, material and component identification requirements, drawings, specifications, codes and industrial standards, test and inspection requirements, and special process instructions.

3. The documentation (e.g., drawings, specifications, procedures, inspection, and fabrication plans, inspection and test records, personnel and procedures qualifications, and chemical and physical test results of materials) to be prepared, maintained and submitted to the purchaser for review and approval.

4. Those records to be retained, controlled and maintained by the supplier and those delivered to the purchaser prior to use or installation of the hardware.

5. The procuring agency's right of access to supplier's facilities and records for source inspection and audit.

V. Instructions, Procedures, and Drawings

Activities affecting quality are prescribed and accomplished in accordance with documented instructions, procedures or drawings as deemed necessary.

Procedures are established which clearly delineate the sequence of actions to be accomplished in the preparation, review, approval, and control of instructions, procedures and drawings.

The NIS/QA organization reviews and concurs with inspection plans; test, calibration, and special process procedures; drawings and specifications; and changes thereto; or acceptable alternatives.

IX. Control of Special Processes

Special processes such as welding, heat treating, non-destructive testing and cleaning are procedurally controlled when necessary to the function of the component.

Procedures, equipment and personnel connected with controlled special processes are qualified in accordance with applicable codes, standards and specifications; under these conditions, qualification records of procedures; equipment and personnel are maintained.

X. Inspection

An inspection program which verifies conformance of quality-affecting activities with requirements is established, documented and accomplished in accordance with written and controlled procedures.

Inspection personnel are independent from the individuals performing the activity being inspected. Inspectors are qualified in accordance with applicable codes, standards, and company training programs; and their qualifications and certifications kept current.

Modifications, repairs and replacement are inspected in accordance with the original design and inspection requirements or acceptable alternatives.

Provisions are established that identify mandatory inspection hold points for witness by an inspector as needed.

XI. Test Control

A test program to demonstrate that the item or component will perform satisfactorily in service is established, documented and accomplished in accordance with written, controlled procedures.

Modifications, repairs and replacements are tested in accordance with the original design and testing requirements or acceptable alternatives.

Test results are documented, evaluated and their acceptability determined by a qualified, responsible individual or group.

XII. Control of Measuring and Test Equipment

Measuring and test instruments are calibrated at specified intervals based on the required accuracy, purpose, degree of usage, stability characteristics and other conditions affecting the measurement.

Measuring and test equipment is identified and traceable to the calibration test data.

Measurements are retaken and documented to determine the validity of previous inspections performed when measuring and test equipment is found to be out of calibration.

Reference and transfer standards are traceable to nationally recognized standards; or; where national standards do not exist, provisions are established to document the bases for calibration.