



Westinghouse Electric Company  
Hematite Facility  
3300 State Road P  
Festus MO 63028  
U.S.A.

August 28, 2002

Licensing and Inspection Directorate  
Spent Fuel Project Office  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Attention: Michael Tokar, Chief  
Transportation and Storage Safety and Inspection Section

Subject: Application for Amendment to Quality Assurance Approval Number 0090 (Docket Number 71-0090)

Dear Mr. Tokar,

The Westinghouse Electric Company hereby submits this application for an amendment to Quality Assurance Approval Number 0090. Attached is a copy of a revised Quality Assurance Plan for the transportation of radioactive material from the Westinghouse Hematite site. In a previous license amendment, Westinghouse requested that the utilization category for the approval be reduced from a full scope approval to a use only approval. At that time Westinghouse did not change the Quality Assurance Plan. As this facility is now undergoing decommissioning, Westinghouse is submitting for approval the revised Quality Assurance Plan that reflects the current organization and operations.

If you have any questions concerning this application for a license amendment, please contact me at the above address, by email at [nardiaj@westinghouse.com](mailto:nardiaj@westinghouse.com) or by telephone at (412) 374-4652.

Sincerely,

A handwritten signature in cursive script that reads "A. Joseph Nardi".

A. Joseph Nardi, Supervisory Engineer  
Environment, Health and Safety

Attachment

S-43

cc:

T. Dent – Westinghouse Hematite

G. M. McCann – NRC Region III

Patrick Hiland – NRC Region III

Chris Miller – NRC Region III

R. A. Kucera, Director, Intergovernmental Cooperation, MDNR



Westinghouse

## Hematite Former Fuel Cycle Facility Decommissioning

---

### POLICY

**TITLE:** Transportation Quality Assurance Plan

**USERS:** Hematite Decommissioning Personnel

**REVISION:** 0

---

Author: *Karen Ann Craig* Date: 8/22/02  
Karen Ann Craig

Reviewer: *A. Joseph Nardi* Date: 8/22/02  
A. Joseph Nardi

QA: *Karen Ann Craig* Date: 8/23/02  
Karen Ann Craig

Approval: *TH Dent* Date: 8/23/02  
Thomas H. Dent



## 1.0 PURPOSE

The purpose of this Transportation Quality Assurance Plan (TQAP) is to outline the Project's policy for procuring, maintaining, repairing and using transportation packaging for the shipment of radioactive materials.

## 2.0 POLICY

This policy is intended to be consistent with the provisions of 10 CFR Part 71 Subpart H, and constitutes the Hematite 'Quality Assurance Plan for the Transportation of Radioactive Material.'

## 3.0 APPLICABILITY

The TQAP is applicable to the following:

- Greater than Type A quantities of radioactive material,
- Fissile materials,
- Fissile exempt materials in accordance with the license exemption for SNM-33, or
- Fissile materials under the general licenses provided in 10CFR71.14, 71.16, 71.18, 71.20, 71.22 and 71.24.

This document is not applicable to the transportation of fissile exempt materials made in accordance with the provisions of 10CFR71.53 and 49CFR173.453.

## 4.0 DEFINITIONS/ACRONYMS

**Package:** As defined by 10 CFR Part 71, package means the packaging together with its radioactive contents as presented for transport.

**Packaging:** As defined by 10 CFR Part 71, packaging means the assembly of components necessary to ensure compliance with the packaging requirements of 10 CFR Part 71. It may consist of one or more receptacles, absorbent materials, spacing structures, thermal insulation, radiation shielding and devices for cooling or absorbing mechanical shocks. The vehicle, tie-down system and auxiliary equipment may be designated as part of the packaging.

CFR            Code of Federal Regulations  
DOT            Department of Transportation

NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
QA	Quality Assurance
SNM	Special Nuclear Material
TQAP	Transportation Quality Assurance Plan

## 5.0 REFERENCES

5.1 10 CFR Part 71, Subpart H, "*Quality Assurance.*"

## 6.0 RESPONSIBILITIES

The Westinghouse Electric Corporation has the final responsibility for the Quality Assurance (QA) program for Part 71 requirements. The Hematite Project Director is responsible for overall administration and implementation of the program. Responsibilities at Hematite are provided below.

### 6.1 Project Director

The Project Director (Director) has the overall responsibility for establishing a program for ensuring that material at the project site is received, possessed, transferred, released or disposed of in accordance with applicable regulations. The Director shall oversee the activities of the Transportation Manager. The Director may designate responsibilities to other individuals as necessary.

### 6.2 Quality Assurance Manager

The QA Manager has responsibility for ensuring that the appropriate records are generated and stored and that the procedures up to date for the tasks performed. Other responsibilities are specified throughout this TQAPP as applicable. The QA Manager may designate responsibilities to other individuals as necessary.

### 6.3 Transportation Manager

The Transportation Manager has the responsibility for ensuring hazardous materials are properly identified, classified, packaged, marked, labeled, and offered for transport in accordance with the Department of Transportation (DOT) and any other applicable regulations. The Transportation Manager may designate responsibilities to other individuals as necessary.

### 6.4 Site Personnel

Site Personnel are responsible for complying with this TQAP and for properly reporting deficiencies or non-compliance issues related to transportation quality.

## **7.0 GENERAL**

This TQAP will be implemented under license SNM-33 at Hematite. Radioactive material shipping packages must be:

- Designed and manufactured under a NRC-approved QA program, or
- Be of commercial quality when use of a specification container is not required under the regulations or the fissile exemption for SNM-33.

For parts obtained under this program, the requisitioner will specify the quality category and the quality category and specify procurement requirements per 10 CFR Part 71, Subpart H. The Director will ensure that personnel performing activities important to safety are trained and qualified to perform these activities.

### **7.1 Package Design Control**

Design functions are not to be performed under this program.

### **7.2 Procurement Document Control**

Purchasing or leasing of packages, parts or design or manufacturing functions will be made using standard procurement documents as established through site policies and procedures. Purchase requisitions must state that the packages or parts shall be designed and manufactured under or the design function carried out under a NRC-approved QA program except when this is not required for the package to be used.

Procurement documents must identify the documentation (such as drawings, specifications, procedures, inspection plans, inspection and test records, personnel and procedure qualifications, certificates of compliance, handling procedures and material test reports) required to be prepared, controlled, maintained, and submitted for review and/or approval. The required documentation associated with purchase orders will be approved by the Director as applicable.

Changes and revisions to procurement documents are subject to the same review and approval as the original documents.

### **7.3 Policies, Procedures and Drawings**

Various documents, appropriate to the application, are in use at Hematite to implement the QA program and provide assurance that those activities affecting quality, in the context of 10CFR71 Subpart H, are documented. Examples are:

- Hematite Quality Assurance Program Plan
- Transportation Plan
- Waste Management Plan
- Radiation Protection Plan

The site Transportation Plan controls the shipment of radioactive materials. A procedure will be prepared for each specification package that establishes loading and unloading methods and vehicle tiedown based on the supplier's package handling procedure. Plans and procedures for maintenance, repair, or rework of packaging are prescribed before the work begins. These plans and procedures are coordinated with QA personnel so that appropriate QA inspection and QA hold points are incorporated into the plans to verify that the required work has been satisfactorily performed. Plans and procedures are reviewed by QA personnel to verify that the plans emphasize those characteristics that are important to quality and safety.

#### 7.4 Document Control

Hazardous materials classification, packaging, and preparation for shipment will be conducted under control of the Project Quality Assurance Program. Copies of paperwork related to the shipment of hazardous materials shall be retained by Waste Management until notification of receipt is obtained from the receiving facility. These records, along with package certification, operation and maintenance records will be provided to Document Control and be retained as QA records for the life of the Project plus 3 years.

Measures are in effect that assure that documents pertaining to the shipping of applicable quantities of radioactive materials, including changes, are reviewed for technical accuracy, reviewed for adequacy of quality assurance provisions, and are approved for release by authorized personnel prior to implementation. These procedures provide a means to assure that at a minimum:

- The proper document revisions are used;
- That obsolete or superseded documents are controlled to prevent inadvertent use;
- That controls are exercised for document changes;
- That individuals or groups responsible for review, approving, and issuing documents and revisions thereto are identified;
- That review and approval of changes are performed by organizations who originally reviewed/approved the document or by a designated alternate organization;
- That approved changes are included in policies, procedures, drawings, and other documents prior to implementation of the change; and
- That those documents are available at the location where the activity will be performed prior to commencing the work.

Document control activities also include provisions for the use, updating and availability of master lists and/or tables of contents to identify the current versions of documents.

Document control is applied to procurement and nonconformance documents including container documentation and documents related to computer codes, as well as to policies and procedures.

This TQAP and subsequent revisions and resulting written procedures shall be reviewed and approved by the Project Director and by the QA Manager. Document Control shall maintain master copies of these documents.

The QA Manager will verify through the procurement process that documents received from suppliers are of the latest revisions. For shipments under this QA Program, the Transportation Manager shall generate a list of the most recent revision of policies, procedures, specifications and drawings required by that shipment. This list shall be reviewed with pertinent personnel involved in the shipment and a copy maintained in the shipment file. The Transportation Manager shall approve revisions to this list.

#### **7.5 Control of Purchased Material, Equipment and Services**

Activities under this QA program are limited to:

- Purchasing or leasing of specification containers from vendors with NRC-approved QA programs.
- Purchasing or leasing of non-specification containers when the container will be used for the shipment of;
  - Fissile Materials,
  - Fissile Exempt materials in accordance with the License Exemption for SNM-33, or
  - Fissile Materials under the general licenses provided in 10CFR71.14, 71.16, 71.18, 71.20, 71.22 and 71.24

Purchased or leased containers shall be inspected upon receipt to ensure compliance with procurement requirements. Documentation of receipt inspections shall be maintained by Document Control. In addition, verification of suppliers' QA program will be performed as dictated by project QA requirements.

#### **7.6 Identification and Control of Materials, Parts and Components**

Items obtained for the repair or maintenance of packages are to be individually identified and traceable to the source identity and the specific drawing part number. Non-traceable parts shall not be used. Identity and traceability of any parts will be included on a Maintenance Checklist.

Any such items having a shelf life or operation time limit shall be marked with its expiration data upon receipt. Use of expired items is prohibited.



### **7.7 Control of Special Processes**

Special processes, including welding, heat treating and non-destructive testing are not allowed.

### **7.8 Internal Inspection**

A receipt inspection will be performed for each individual package received using a receipt inspection checklist as mandated in the site procedure. The inspector will be supplied with a copy of this procedure and the pertinent package certificate of compliance and package handling procedures.

Packages will be inspected prior to shipment.

The QA Manager will develop an appropriate procedure for receipt inspection required and will verify inspections performed under this TQAP.

### **7.9 Test Control**

Acceptance and maintenance tests required by the package documentation will be included as part of the inspections.

### **7.10 Control of Measuring and Test Equipment**

The Project shall maintain means of controlling measuring and test equipment used for measuring and testing activities governed by this program. Calibration will be by comparison to a measurement standard of known accuracy. Calibration must be traceable to a NIST standard, a fundamental or natural constant with values assigned or accepted by NIST or an industry consensus standard.

Each instrument shall be identified by a unique number. Calibration stickers on the instrument shall indicate the last and next calibration due date and calibration limitations. When stickers cannot be affixed directly to the equipment, other suitable measures may be used.

Documented procedures shall detail the requirements for calibration (including frequency of calibrations) of measuring and test equipment, and the use of appropriately traceable and certified measurement standards. These procedures shall assign responsibilities for establishing, implementing, and assuring effectiveness of the calibration program. In addition, these procedures shall establish measures for maintaining appropriate documentation of the calibration test data, the calibration status of measuring and test equipment, and the traceability of calibrations of measuring and test equipment.

Procedures shall be designed to assure accuracies within established standards and any adjustments required, and include disposition and/or corrective measures when



**POLICY**  
**Transportation Quality Assurance Plan**

---

discrepancies are noted. Damaged or inaccurate measuring and test equipment shall be removed from service until repaired or recalibrated. Measures shall be taken and documented to determine the validity of previous test results when measuring and test equipment is found to be out of calibration. If previous results are affected, the appropriate notification should be made.

Equipment not in calibration or not required to be regularly calibrated because of mode or interval of use shall be so tagged or isolated as appropriate.

The measuring and test equipment used, including the identification number, shall be included in the shipping file.

#### **7.11 Handling, Storage and Shipping Control**

Handling, storage and shipping is controlled by the receipt and shipping inspection procedure and the Transportation Plan. The Health Physics group will perform a final vehicle inspection using an established Transport Vehicle Checklist and the inspection will be verified by QA.

#### **7.12 Inspection, Test and Operating Status**

Inspection, test and operating status of packages will be controlled. The QA Manager will be notified, before any shipment or maintenance or repair by the Transportation Manager, with sufficient lead-time to insure QA involvement where appropriate.

#### **7.13 Nonconforming Materials, Parts or Components**

Any package containing nonconforming parts or components shall be immediately tagged and returned to the supplier for corrective action. Minor repairs, such as replacement of bolts or gaskets, are allowed per the suppliers specifications using written and approved procedures.

#### **7.14 Corrective Action**

The Hematite project will maintain a written corrective action program which ensures that conditions detrimental to quality or safety are promptly identified, reported to management, corrected to preclude recurrence and verified by QA.

#### **7.15 Quality Assurance Records**

QA documentation of pertinent package information will be assembled for each shipment. This QA documentation will contain the documentation required by this TQAP including procurement, handling, storage, shipping, inspection, test, audit and repair records. The QA package will be maintained by Document Control. Where



**POLICY**  
**Transportation Quality Assurance Plan**

---

packages are leased for use, the Suppliers will be informed of any maintenance or repair on their packages.

For Westinghouse owned packages procured under this QA program, the following records will be maintained for the lifetime of the package:

- Procurement, design and production records generated during manufacturing and furnished with the packaging;
- Records demonstrating evidence of operational capability;
- Records verifying repair, rework, and replacement;
- Audit plans, audit reports, corrective actions; and
- Records that are used as a baseline for maintenance.

Document Control will maintain these records.

#### **7.16 Audits**

To verify the effectiveness and adequacy of the Quality Assurance Program, Hematite management shall apply a system of planned, annual audits. Qualified audit personnel who do not have direct responsibilities in the area being audited shall conduct these audits in accordance with defined audit procedures.

A written report that documents the audit results and required corrective action shall be prepared. Verification of corrective action (including re-audit of deficient areas, where appropriate) shall be performed and documented.

#### **8.0 FORMS**

None.

#### **9.0 APPENDICES**

None.