



USS VULCAN (AR - 5)
FLEET POST OFFICE
NEW YORK, NEW YORK
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In Reply Refer To:
VULCANINST 9900.4
55:JRD:sdd
9 November 1979

USS VULCAN INSTRUCTION 9900.4

Subj: Quality Assurance Program for Industrial Radiography

- Ref: (a) VULCANINST 9900.1D of 17 March 1978 (Emergency Operating and Emergency Procedures applicalbe to NRC By-Product Material License No. 08-00038-48)
- (b) VULCANINST 9900.3 of 17 March 1978 (Internal Inspection Procedures for Corrective/Preventive Maintenance to Gamma Radiography Equipment)
- (c) United States Nuclear Regulatory Commission Rules and Regulations, 10 - CFR, Part 71 "Packaging of Radioactive Material for Transport and Transportation of Radioactive Material Under Certain Conditions"

Encl: (1) Records of Test and Inspections; formats for

1. Purpose. To establish a Quality Assurance Program for the proper packaging, handling, and shipping of Radioactive Sources used in Industrial Radiography as required by Title 10, Code of Federal Regulations, Part 71. Design and Fabrication shall not be conducted under this QA Program.

2. Organization. The Quality Assurance Program is implemented using the following Organizational Structure and Chain of Command:

Commanding Officer

Repair Officer

Radiographic Safety Officer

Senior Radiographer

Radiographers

3. Responsibilities.

a. Commanding Officer

(1) The final responsibilities for the Quality Assurance Program for Industrial Radiography, set forth in this instruction, and as required by reference (c), shall rest with the Commanding Officer, USS VULCAN.

b. Repair Officer

(1) In his capacity as Local Government Inspector, he shall

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conduct an audit at least annually. This audit may be conducted at times during which other NRC required audits are scheduled.

c. Radiographic Safety Officer (RSO)

(1) The RSO is responsible for overall administration of this Quality Assurance Program. In addition, he shall provide Training, Certification and Document Control.

d. Senior Radiographer and Radiographers

(1) The senior Radiographer, and under his direction, the Radiographers are responsible for the handling, storing, shipping, inspections, test, operation and record keeping in accordance with references (a), (b) and (c) and this Instruction.

4. Quality Assurance Program

a. This QA Program will ensure that all defined Quality Control (QC) Procedures, engineering procedures, and specific provisions of the package design approval are satisfied. The Radiographic Safety Officer shall assure that all Radioactive Material Shipping Packages are designed and manufactured under a QA Program approved by the Nuclear Regulatory Commission. For all packages designed or fabricated after the effective date of the QA Program, this requirement can be satisfied by receiving a certification to this effect from the manufacturer.

5. Document Control.

a. All documents related to a specific shipping package will be controlled through the use of written procedures. All document changes will be performed according to written procedures approved by the Radiographic Safety Officer. The Radiographic Safety Officer shall insure that all QA functions are conducted in accordance with the latest applicable changes to these documents.

6. Handling, Storage, and Shipping.

a. Written safety procedures concerning the handling, storage, and shipping of packages for certain special form radioactive material will be in accordance with references (a), (b) and (c). Shipments will not be made unless all test, certifications, acceptance, and final inspections have been completed. Work instructions will be provided for handling, storing, and shipping operations. Radiography personnel shall perform the critical handling, storage, and shipping operations.

7. Test and Inspections

a. Test and inspections will be limited to Visual, Mechanical and Radiation as defined herein.

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(1) Visual

a. Inspection will consist of a thorough visual examination of shipping containers for dents, cracks, etc., in and to the outer shielding encasement material.

(2) Mechanical

a. Inspection shall be a thorough examination of all mechanical parts of the shipping containers, such as source chamber plug.

(3) Radiation

a. Radiation readings shall be taken to insure that source is in proper stowage and that shipping container does not have defective shielding, allowing excessive radiation leakage.

b. All test and inspections will be conducted upon receipt of, transfer of, or use of a radioactive source and at other times as required by references (a), (b) and (c).

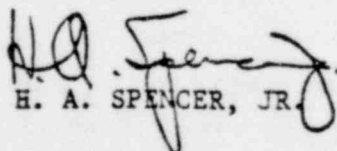
c. Results of test and inspections shall be documented as required by references (a), (b) and (c) using the formats of enclosure (1) and Radiographic Exposure Log.

8. Quality Assurance Records.

a. Records of package approvals (including references and drawings), procurement, inspections, test, operating logs, audit results, personnel training, qualifications and records of shipments will be maintained by the Senior Radiographer. Descriptions of equipment and written procedures will also be maintained. These records will be maintained in accordance with references (a), (b) and (c). The records will be identifiable and retrievable. A list of these records, with their stowage location, will be maintained by the Radiographic Safety Officer.

9. Audits.

a. Established schedules of audits of the QA Program will be performed using written check lists. Results of audits will be maintained and reported to the Commanding Officer. Audit reports will be evaluated and deficient areas corrected. The audits will be dependent on the safety significance of the activity being audited, but each activity will be audited at least once per year. Audit reports will be maintained as part of the quality assurance records.


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Distribution: A, D, D-1, All NDT Personnel

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