



DEPARTMENT OF THE NAVY

USS FRANK CABLE (AS-40)

FPO NEW YORK 09501

IN REPLY REFER TO:

FRANK CABLEINST 9090.1A

AS40:48:fwy

14 FEB 1980

USS FRANK CABLE INSTRUCTION 9090.1A

Subj: Quality Assurance Program for Packing of Radioactive Material for Transport

Ref: (a) Title 10, Code of Federal Regulations, Section 71.51
(b) FRANK CABLE INSTRUCTION 5100.4, Gamma Radiography and Radiac Calibration; procedure for

Encl: (1) Organization Structure of the Quality Assurance Program for Gamma Radiography and Radiac Calibration Sources

1. Purpose. To promulgate instructions to establish and define the quality assurance program for administrative controls and protection procedures for gamma radiography and calibration sources and to establish an auditing program to ensure compliance with current directives.

2. Cancellation. FRANK CABLE INSTRUCTION 9090.1 of 20 November 1979 is hereby cancelled and superseded.

3. Discussion. The final responsibility for the Quality Assurance program required by reference (a) rests with the USS FRANK CABLE. Design and fabrication shall not be conducted under this Quality Assurance program. The instructions set forth herein, and in reference (b), define FRANK CABLE's administrative controls and protection procedures for gamma radiography, radiac calibration sources and the associated quality assurance program. Situations not clearly defined in this instruction will be handled by recommendation from FRANK CABLE's Radiation Safety Officer as approved by FRANK CABLE's Repair Officer. Changes to this instruction shall be routed to the Nuclear Regulatory Commission (NRC) for approval prior to implementation.

4. Organization/Responsibilities. The Quality Assurance Program shall be implemented utilizing the following organization. Enclosure (1) graphically displays this organization structure.

a. The Repair Officer (as directed by the Commanding Officer) is directly responsible for the radioactive sealed sources in FRANK CABLE. He will be assisted by the Radiological Controls Officer and the Radiation Safety Officer.

b. The Radiological Controls Officer is responsible:

(1) For ensuring that the handling, stowage, preparation for shipping, inspections, leak tests and operational requirements

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relating to radiac calibration sources; and the preparation for shipping and leak test of radiographic sources comply with references (a) and (b), and paragraph 5 of this instruction.

A) (2) Ensure that all test, certifications, acceptance, and inspections have been completed prior to receipt or shipment of radioactive material.

A) (3) Maintenance positive status of all non-conforming parts and shipping containers in accordance with written procedures.

(4) To the Repair Officer for ensuring that required audits are conducted as promulgated.

A) c. The Radiation Safety Officer has overall responsible for administering this program and for ensuring that the requirements and provisions of the U.S. Nuclear Regulatory Commission By-product Material License approved for the USS FRANK CABLE and this instruction are complied with. He shall:

(1) Maintain adequate security and stowage facilities for radiographic sources in compliance with NRC regulations.

(2) Develop, promulgate, and conduct training, verify personnel qualifications, and supervise casualty procedures involving radioactive sources authorized by the NRC By-product Material License.

(3) Assist the Radiological Controls Officer in conducting required audits promulgated by this instruction.

(4) Be responsible for auditable record controls.

A) (5) Ensure timely correction of all deficient items identified by audits conducted in accordance with paragraph 6.e of this instruction or any other inspection conducted by higher authority.

A) (6) Ensure completion of required training prior to assignment of personnel.

A) (7) Obtain certification that shipping package design and manufacture has been completed in compliance with a Quality Assurance program which has been approved by the Nuclear Regulatory Commission.

A) d. Radiography, Radiac Calibration and Radiological Controls personnel are responsible for handling, storing, shipping, inspecting, testing, operating evolutions, and record keeping. The results of inspections, tests, and operational status of special form radioactive material shall be maintained in appropriate equipment logs.

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5. Shipping Materials and Identification. The following shipping packages associated with by-product, source, and/or special nuclear material are approved by the NRC license and are the sole shipping packages authorized to be used in FRANK CABLE for radiography and radiac calibration sources.

- a. Automation Industries Model 200-520-008 Sealed Source (Ir-192)
- b. Oak Ridge National Laboratories Sealed Source (Cs-137)
- c. Automation Industries Model 520 Exposure Device / TECH OPS 640 MODEL
- d. Automation Industries Model 500-SU Source Changer / TECH OPS 650 MODEL
- e. TS-1216 C/UD Radiac Calibrator

6. Action. USS FRANK CABLE establishes and implements the Quality Assurance Program described herein and in reference (a). Training and auditing procedures and specific provisions in package design shall comply with this instruction and those delineated by references (a) and (b). Emphasis will be placed on control of activities which are significant to safety.

a. Auditable Records Control shall be maintained to establish and verify compliance with the specifications outlined by references (a) and (b).

b. Handling, Storage and Shipping shall be performed in accordance with the established instructions and procedures of references (a) and (b), and only by those personnel authorized by reference (b).

c. Inspections, Tests and Operations involving all radioactive material and storage containers shall be in compliance with references (a) and (b) and performed only those personnel authorized by reference (b).

d. Quality Assurance Records of tests, inspection, operating logs, audit results, personnel training, qualification, and records of shipments as well as descriptions of equipment and written procedures shall be maintained as specified by reference (b).

e. Audits shall be conducted as prescribed below:

(1) Audit plans shall be prepared for use in monitoring and evaluating FRANK CABLE's compliance with references (a) and (b) and this instruction. Audits shall be conducted using these plans at least semi-annually by an officer appointed as Audit Team Leader by the Repair Officer (Officer appointed will not be directly

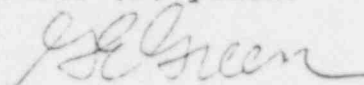
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responsible for source handling in FRANK CABLE) and assisted by the Radiation Safety Officer, Radiological Controls Officer, and any additional officer deemed necessary to perform an adequate and complete audit.

(2) A report of audit findings shall be submitted to the Repair Officer, by the Audit Team Leader, no later than five (5) working days after completion of the audit. Audit findings shall include those recommendations/corrective actions that the audit team considers necessary to align FRANK CABLE's administrative control and protection procedures for gamma radiography and radiac calibration sources and the associated Quality Assurance Program with the requirements of references (a) and (b) and this instruction.

(3) The Repair Officer shall review and forward the audit report to the Commanding Officer when corrective actions have been completed. Audit reports, after the Commanding Officer's review, shall be retained on file for three (3) years.



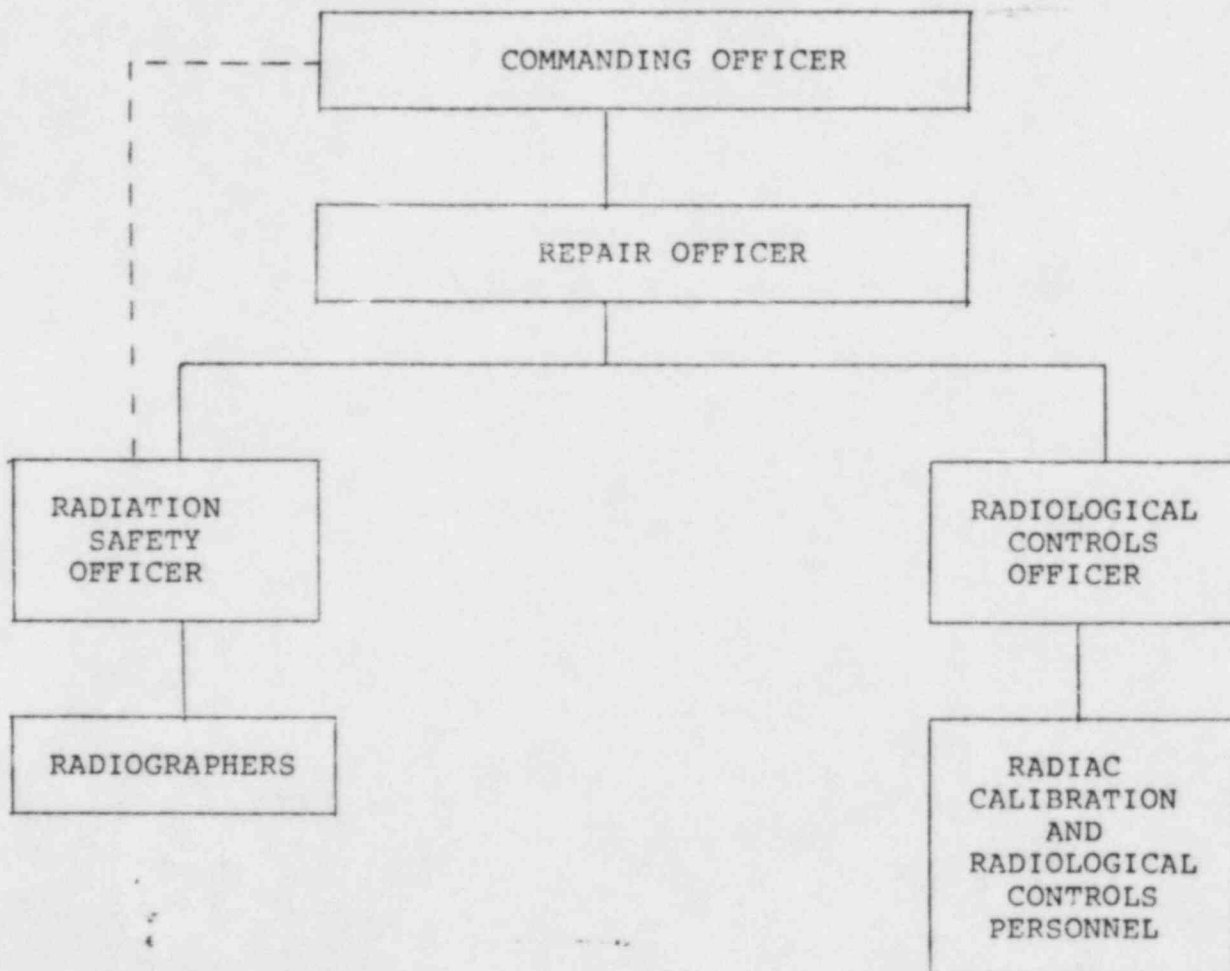
G. E. GREEN

Distribution: (USS FRANK CABLE INSTRUCTION 5216.1)
List I (Case A)

13 Feb 1960

ORGANIZATION STRUCTURE OF QUALITY ASSURANCE PROGRAM
FOR RADIOGRAPHIC AND RADIAC CALIBRATION SOURCE

1. The Chain of Command as referred to in this instruction is depicted below as it relates to Radiography and Radiac Calibration. The dotted lines indicate a provision for direct access up the Chain of Command in matters involving safety.



Enclosure (1)