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APPROVED .	0	DATE
1. Julya	re .	6-23-78
AUTHORIZED FOR USE		DATE
EFFECTIVE DATE:	JULY	- 1 1978

# QUALITY ASSURANCE PROGRAM FOR USE, MAINTENANCE AND REPAIR OF SHIPPING CONTAINERS FOR RADIOACTIVE MATERIAL

### GEO CONSTRUCTION TESTING 1118 Chess Drive Foster City, California 94404

Wherever the words "Peabody Testing/X-Ray Engineering Co." or "X-Ray Engineering Co." appears in this Program, it shall hereafter mean "GEO Construction Testing".

	Reference: 10CFR71		1
0	Original Issue	SEK	6/23/78
A	Revised Paragraph 7.0	ТЖС	8/23/79
	Revision - Name Change ONLY	ТЖС	4/06/81
REVISION NO.	DESCRIPTION	87	DATE

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## Attachment

GE

Shipping Container Inspection (yearly) form Radioactive Material Transfer Report (Figure 3) Management Audit - Radiation Safety Officer

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1	SHIPPING CONTAINERS	FOR RADIOACTIVE	MAIERIAL	A	

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1.0 ORGANIZATION

The final responsibility for the Quality Assurance Program for Part 71 requirements rests with Peabody Testing/X-Ray Engineering Company. Design and fabrication of radioactive material shipping packages shall not be conducted under this Quality Assurance Program. The Quality Assurance Program is implemented using the following organization:

- a. The Radiation Safety Officer is responsible for overall administration of the Program, training and certification, document control, and auditing.
- B. Radiographers are responsible for handling, storing, shipping, inspection, test, operating status and record keeping.

#### 2.0 QUALITY ASSURANCE PROGRAM

The management of Peabody Testing/X-Ray Engineering Company establishes and implements this Quality Assurance Program. Training for all QA functions, prior to engagement in these functions, is required according to written procedures. QA Program revisions will be made according to written procedures with management approval. The QA Program will ensure that all defined QC procedures, engineering procedures, and specific provisions of the package design approval are satisfied. The QA Program will emphasize control of the characteristics of the package which are critical to safety.

The Radiation Safety Officer shall assure that all radioactive material shipping packages are designed and manufactured under a Quality Assurance Program approved by the Nuclear Regulatory Commission for all packages designed or fabricated after July 1, 1978. This requirement can be satisfied by receiving a certification to this effect from the manufacturer.

Written procedures and instructions for implementing the Quality Assurance Program are contained in the Radiation Safety Program.

#### 3.0 DOCUMENT CONTROL

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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 management.

The Radiation Safety Officer shall insure that all QA functions are conducted in accordance with the latest applicable changes to these documents.

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#### 4.0 HANDLING, STORAGE AND SHIPPING

Written safety procedures concerning the handling, storage, and shipping of packages for certain special form radioactive material will be followed. Shipments will not be made unless all tests, certifications, acceptances, and final inspections have been completed. Work instructions will be provided for handling, storage, and shipping operations.

Radiography personnel shall perform the handling, storage, and shipping operations.

#### 5.0 INSPECTIONS, TEST AND OPERATING STATUS

Inspections, test and operating status of packages for certain special form radioactive material will be indicated and controlled by written procedures. Status will be indicated by tag, label, marking or log entry. Status of nonconforming parts or packages will be positively maintained by written procedures.

Radiography personnel shall perform the regulatory required inspections and tests in accordance with written procedures. The Radiation Safety Officer shall ensure that these functions are performed.

#### 6.0 QUALITY ASSURANCE RECORDS

Records of package approvals (including references and drawings), inspections, tests, operating logs, audit results, personnel training and qualifications and records of shipments will be maintained. Descriptions of equipment and written procedures will also be maintained.

These records will be maintained in accordance with written procedures. The records will be identifiable and retrievable. A list of these records, with their storage locations, will be maintained by the Radiation Safety Officer.

#### 7.0 AUDITS

Audits for vertfication of compliance with the Quality Assurance Program will be conducted as described below:

- a. Each completed "Radioactive Material Transfer Report" form (see Radiation Safety Program) will be reviewed by the Radiation Safety Officer, or his designee, when it is received. This review will check for proper completion of all appropriate portions of the form.
- b. At least once each year, each shipping container will be checked for damage, proper labeling, and identification.
- c. Management shall conduct periodic audits (not to exceed yearly) on the Radiation Safety Officer for compliance with the program's procedures. Audit will be conducted using the Quality Assurance Program's Management Audit Form (attached).

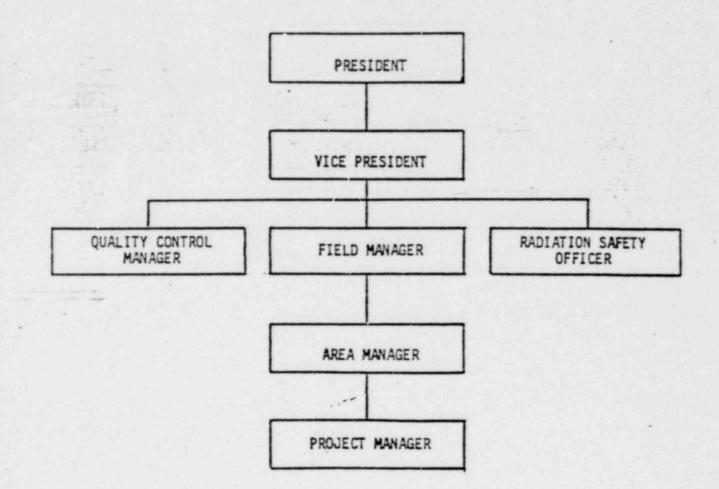
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Results of audits will be maintained and reported to management. Audit reports will be evaluated and deficient areas corrected. Audit reports will be maintained as part of the Quality Assurance records. Personnel performing audits shall have no direct responsibility in the activity being audited.

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## QUALITY ASSURANCE PROGRAM FOR

PeabodyTesting

SHIPPING CONTAINER INSPECTION (YEARLY)

	Shipping Container Model No				
	ation				
Spe	cial Instructions		Star / Sec.		
-		Accept	Repaired	Replaced	
1.	Condition of Container			E inc.	
2.	Danger Peligro Cargo Aircraft Labeling				
3.	Attached Package Certification (IAEA)	_			
4.	Radioactive Material Special Form N.O.S. Labeling				
5.	Type B Labeling				
6.	Package Certificate Labeling (same as Model or Identification No.)		_		
7.	Inside Thermal Barrier				
8.	Inside Polyurethane Filler				
9.	Attach Ring Seal				
10.	Container Locking Device (bolt or clip)				
Ren	narks				
_			<u> </u>		
-					
	signated Representative		Data		

All shipping containers shall conform to the requirements of DOT and 10 CFR Part 71.

## QUALITY ASSURANCE PROGRAM

PeabodyTesting

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## MANAGEMENT AUDIT

Rad	iation Safety Officer	Date _		
1.	Copy of the Quality Assurance Program on file			
2.	The Quality Assurance Program is adequately estab			
3.	Records of inspection (yearly) for shipping cont			
4.	Records of "Radioactive Material Transfer Report			
5.	Is adequate control of shipping containers being			
and a start	Are audit results being reported to management _			
7.	Management's inspection of at least one (1) ship program requirements. (If additional container	s are inspecte	ed use re	verse side)
	Shipping Container Model No.	S/N		
	Location	Accept	Poor	Defective
Rem	<ul> <li>a. Condition of container</li> <li>b. Danger Peligro Cargo Aircraft Labeling</li> <li>c. Package Certification (IAEA) attached</li> <li>d. Padioactive Material Special Form N.O.S. Labe</li> <li>e. Type B Labeling</li> <li>f. Package Certificate Labeling (same as model o Identification No.)</li> <li>g. Inside Thermal Barrier</li> <li>h. Inside Polyurethan Filler</li> <li>i. Attach Ring Seal</li> <li>j. Container Locking Device (bolt or clip)</li> </ul>			
	No items of non-compliance found		14	<u>6</u>
F	Areas of non-compliance found			
-				
				-
Aud	dit Performed By	Title		
RSO				
	tter of corrective action for areas of noncompliar	nce issued on		
	 (Date)			

Location	Accept	Poor	Defective
a. Condition of container		<u>.</u>	
D. Danger Peligro Cargo Aircraft Labeling			
c. Package Certification (IAEA) attached			
d. Padioactive Material Special Form N.O.S. Label			
e. Type B Labeling			
f. Package Certificate Labeling (same as model or			
Identification No.)			
g. Inside Thermal Barrier			
h. Inside Polyurethan Filler			
i. Attach Ring Seal			
j. Container Locking Device (bolt or clip)			

.

Location	Accept	Poor	Defective
a. Condition of container			
b. Danger Peligro Cargo Aircraft Labeling			
c. Package Certification (IAEA) attached			
d. Padioactive Material Special Form N.O.S. Label			
e. Type B Labeling			
f. Package Certificate Labeling (same as model or			
Identification No.)			
g. Inside Thermal Barrier		1.00	
h. Inside Polyurethan Filler			
n. Inside Polyureulan Filler			
i. Attach Ring Seal			
j. Container Locking Device (bolt or clip)			
			A water

FIGRE 3

JOI	BSITE		DAC	TE	in the state
ISC	DTOPECAP	SULE S/N		CURIES	
	EX	POSURE DEVI	Œ		
MAR	CN	ODEL_		S/N	
ĪR	ANSFERRED FROM		TO	42.99-7-7	a la companya da se
REA	ASON FOR TRANSFER:				
NEL	SOURCE REQUESTED SOURCE R		MATER		
				CITONING OR DAM	
LIS	ST ANY MECHANICAL DEFECTS OR MALFU	NCTIONS			
C17	IPMENT PREPARED BY		ALTHORIZI		
011		PING CONTAI		<i>w</i> 51	
Cor	ntainer shall be a Type B designed			frements of DUT	
1.	Shipping Container S/N			led with 'Radio-	
2.	Condition of Shipping Container		active Material Special Form N.O.S."		
3.	Danger Peligro Cargo Aircraft			led with "Type B	,,
	Only Label Affixed			ping Label Affix	
4.	Package Certification or Approval Affixed			active Yellow	
5.	Labeled with Package Certificate	ificate		Ls Affixed	
	(Nodel or Identification No.)		Туре	of Label: Yell	av II 🗌
			-	Yell	~ III 🗌
	SURVEY OF MAI	ERIAL PRICE	TO SHIPME	<u>xr</u>	
SUT	RFACE OF EXPOSURE DEVICE		MR/HR	AT 36"	MR/H
SUF	REACE OF CONTAINER		MR/HR	AT 36"	MR/H
2.3.2		00000000000000	3 A G G A A A A A A	the second and make in the second	and a lot interesting the second second second
~~/	*******************************	MATERIAL AS	*********	*****	**********
SUF	RFACE OF CONTAINER		MR/HR	AT 36"	MR/H
SUF	RFACE OF EXPOSURE DEVICE		MR/HR	AT 36"	MR/H

(Shipper complete top half of report and ship with exposure device. Individual receiving material complete bottom (survey of material as received) and return by mail to originator (jobsite) with a copy to the RSO.



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

577 6 7 1979

FCTC: RHO 71-0064

Peabody Testing/X-Ray Engineering Co. ATTN: Mr. Tom W. Cuthbertson 1118 Chess Drive Foster City, CA 94404

Gentlemen:

Enclosed is Quality Assurance Program Approval for Radioactive Material Packages No. 0064, Revision No. 0.

Please note the conditions included in the approval. In particular, the attachment identified on page i of the application is not included as part of your QA program.

Sincerely,

15

Charles E. MacDonald, Chief Transportation Certification Branch Division of Fuel Cycle and Material Safety, NMSS

Enclosure: As stated



NRC FORM 311 (12-78)

#### US. NUCLEAR REGULATORY COMMISSION QUALITY ASSURANCE PROGRAM APPROVAL FOR RADIOACTIVE MATERIAL PACKAGES

1. APPROVAL NUMBER 0064 REVISION NUMBER

0

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 71, and in reliance on statements and representations heretofore made in Item 5 by the person named in Item 2, the Quality Assurance Program identified in Item 5 is hereby approved. This approval is issued to satisfy the requirements of Section 71.51 of 10 CFR Part 71. This approval is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

2. NAME	3. EXPIRATION DATE		
Peabody Testing/X-Ra	y Engineering Compa	iny ···	<sup>44</sup>
STREET ADDRESS	November 30, 1984		
1118 Chess Drive	and the second	4. DOCKET NUMBER	
CITY	STATE	ZIP CODE	
Foster City	CA	9440	71-0064
S. QUALITY ASSURANCE PROGRA	MAPPLICATION DATE(S)		
August 24, 1979	a series de la company	وجرك بالمترجع ويرجع	

S. CONDITIONS

- A. Activities conducted under applicable criteria of Appenidx E of 10 CFR Part 71 to be executed with regard to transportation packages by November 1, 1979.
- B. The shipping activities authorized by this approval are procurement, maintenance, repair, and use. All other shipping activities (i.e., design, fabrication, assembly, testing, and modification) shall be satisfied by obtaining certifications from package suppliers that these activities were conducted in accordance with an NRC-approved QA program. It shall remain the responsibility of the licensee-user that all transportation activities meet the requirements of 10 CFR §71.51.
- C. The attachment identified on page i of the application is not included as part of your QA program.

AL O S FOR THE US. NUCLAR REGULATORY COMMISSION	
Charles E. MacDonald, Chief, Transportation Certification Branch, Division of Fuel Cycle and Material Safety, NMSS	SEP 0 7 1979
POOR	-ORIGINAL-

Model No. 6717-B Packaging USA/6717/B

#### Addressees: w/encl

Argonne National Laboratory ATTN: Mr. Elbert M. Kwirant 9700 South Cass Avenue Argonne, IL 60439

Argonne National Laboratory ATTN: Mr. R. U. Curl P.O. Box 2528 Idaho Falls, ID 83401

Daniel International Corporation ATTN: Mr. Ronald N. Prewitt Daniel Building Greenville, SC 29602

Department of the Navy ATTN: Mr. R. L. Seacat Norfolk Naval Shipyard Portsmouth, VA 23709

Gamma Industries ATTN: Mr. Harry D. Richardson P.O. Box 2543 Baton Rouge, LA 70821

General Dynamis ATTN: Mr. R. H. Surprenant Eastern Point Road Groton, CT 06340

Gulf Nuclear, Inc. ATTN: Mr. Walter P. Peeples, Jr. P.O. Box 58865 Houston, TX 77058 AUG 0 4 1980

Lawrence Livermore Laboratory ATTN: Mr. Stephen Chin P.O. Box 808 University of California Livermore, CA 94550

Metals Testing Company, Inc. ATTN: Mr. John H. Leins, Sr. P.O. Box 213 South Windsor, CT 06074

Midstate Testing Laboratory ATTN: Mr. Thomas J. Keilman 7943 New Jersey Avenue Hammond, IN 46323 GEO CONSTRUCTION TESTING Peabody Testing/X=Ray Engineering Company FOSTER CITY. CA. 94404 ATTN: Mr. Tom W. Cuthbertson 1118 Chess Drive Foster City, CA 94404

Source Prod. & Equip. Co., Inc. ATTN: Mr. R. F. Dicharry 625 Oxley Street Kenner, LA 70062

Space Science Services, Inc. ATTN: Mr. Donald A. Goiner P.O. Box 20126 Orlando, FL 32814

Twin City Testing & Engr. Lab. ATTN: Mr. Howard T. Schulze 662 Cromwell Avenue St. Paul, MN 55114