

**Alicia**

**Research &  
Testing Labs, Inc.**

QA, QC, NDE  
Research and Development

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West Creek, New Jersey 08092  
(609) 296-0800

June 18, 1985

MS 16  
K2

United States Nuclear Regulatory Commission  
Region 1, 631 Park Avenue  
King of Prussia, Pennsylvania 19406

Docket No.: 030-21248  
Control No.: 103706

Attention: Jack Davis  
Nuclear Materials Safety  
Section A  
Division of Radiation Safety

Gentlemen:

In accordance with a telephone conversation this date between Mr. Jack Miller, Radiation Safety Officer, and your office, we submit the following changes to our letter dated June 10, 1985.

Item 2 Paragraph C "Field Examination" (Exhibit 1)

Response: Delete Radiographer Field Examination Test Paper (20 questions) and substitute "Radiographer Performance Evaluation Checklist" (copy enclosed)

Item 3 Previous Radiographic Experience (Radiographer)

Response: Substitute paragraph B Field Training Practical Test (20 questions) and replace with "Radiographer Performance Evaluation Checklist".

Item 10 Radiation Safety Internal Audit Form

Response: Add Exhibit 1, Field Radiography, "Internal Inspection Checklist" to AR&T Labs "Radiation Safety Internal Audit Form" No. ART-262 (copy attached).

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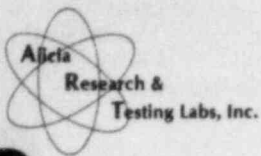
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JUN 20 1985



Page 2 of 2  
NRC Letter

June 19, 1985

We trust that the reponse on page one (1) will clarify remarks made in our letter of June 10, 1985 in our application for a By Product Material License.

Sincerely,

ALICIA RESEARCH & TESTING LABS, INC.

A handwritten signature in dark ink, appearing to read "Michael Kozak", is written over the typed name and title.

Michael Kozak  
President

MK/krs

Attachments: Radiographer Performance Evaluation Checklist  
Exhibit 1, Field Radiography, "Internal Inspection Checklist

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RADIOGRAPHER PERFORMANCE EVALUATION

CHECKLIST

NOTE: The following checklist will be completed by the Radiation Safety Officer to ascertain that the employee is qualified to perform radiographic examinations as a Radiographer using Iridium 192 as the source of radiation.

This performance test will use a dummy source with no film in the cassettes.

		Yes	No
1.	Is the perimeter of the exposure site roped off to a 2 mr/hr radiation level?		
2.	Are "Caution High Radiation" Signs posted on all sides of the roped off area?		
3.	Does the Radiographer wear a film badge, pocket dosimeter at zero, carry a calibrated survey meter, AR&T Operating and Emergency Procedures, copy of NRC Part 19, 20, 34?		
4.	Does the Radiographer have a copy of the AR&T Labs Utilization Log?		
5.	Does the Radiographer know how to unlock the camera?		
6.	Does the Radiographer know how to turn the selector ring from lock position to the connect position?		
7.	Does the Radiographer know how to slide the Model 661 connector collar back and open the jaws of the Model 661 connector to expose the male portion of the swivel type drive cable connector?		
8.	Does the Radiographer know how to engage the male and female portions of the swivel connector by depressing the spring loaded locking pin toward the exposure device with the thumbnail?		
9.	Does the Radiographer know how to release the locking pin and test that the connection has been properly made?		
10.	Does the Radiographer know how to close the jaws of the Model 661 connector over the swivel connector?		
11.	Does the Radiographer know how to slide the Model 661 connector collar over the connector jaws and hold the collar flush against the control unit connector and rotate the selector ring from the connect position to the lock position?		
12.	Does the Radiographer keep the exposure device locked until operation is ready to start?		
13.	Does the Radiographer position and secure the source stop of the master source guide tube at the radiographic focal position using the tripod stand and swivel clamps?		
14.	With the exposure device positioned and the extender source guide tubes show no bend radius less than 20 inches.		
15.	Does the Radiographer know how to connect the source guide tubes to the exposure device?		
16.	Is the control housing laid out with no bend radii less than 36 inches?		
17.	Does the Radiographer know how to connect the control unit to the exposure device?		
18.	Before operation does the Radiographer check all connections, bend radii, and source stop?		
19.	Did the Radiographer check the operation of the survey meter by reading the radiation level six (6) inches from the surface of the exposure device (50 mr/hr for 100 curie Iridium 192 source)?		
20.	How does the Radiographer know when the source is free to move?		

RADIOGRAPHIC PERFORMANCE EVALUATION

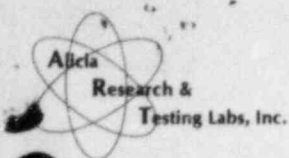
CHECKLIST

		Yes	No
21.	Observe the steps taken by Radiographer: A) Expose B) The source stop C) Odometer reading D) Set the brake on E) Return source to exposure device F) Brake off G) Retract source H) Survey meter check of exposure device on all sides I) Survey source guide tube J) Source stored in exposure device K) Selector ring from operate to lock position		
22.	Disassembly: A) Lock to connect B) Disengage control unit from exposure device C) Replace storage cover in the control unit connector D) Rotate selector ring to lock position E) Remove key and engage lock to secure exposure device F) Survey exposure device with meter to ensure source is properly secured G) Unscrew source guide tube sections and remove master guide tube from tripod stand H) Place plastic caps on tubes and Model 661 connector to eliminate dust and dirt from entering tubes I) Insert storage plug into guide tube connector and tighten J) Disassemble tripod stand		
23.	Check pocket dosimeter for radiation dose		
24.	Fill out Utilization Log		
25.	Transport unit to storage area using hand truck		

Signature of R.S.O. \_\_\_\_\_

Date \_\_\_\_\_

Name of Radiographer \_\_\_\_\_

Field RadiographyInternal Inspection Checklist

Radiographic Location \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Radiographer \_\_\_\_\_ Inspector \_\_\_\_\_  
Radioisotope \_\_\_\_\_ Curies \_\_\_\_\_ Serial No. \_\_\_\_\_  
Projector Serial No. \_\_\_\_\_ Projector Model No. \_\_\_\_\_  
Survey Meter Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_ Calibration Due Date \_\_\_\_\_

YesNo

1. Was the radiographer wearing a film badge and dosimeter?
2. Were other individuals working within the restricted area wearing film badges and dosimeters?
3. Was the restricted area posted with "CAUTION (or DANGER) RADIATION AREA" signs?
4. Was the restricted area properly controlled to prevent unauthorized entry?
5. Was the high radiation area posted with "CAUTION (or DANGER) HIGH RADIATION AREA" signs?
6. Did the radiographer have a calibrated and properly operating survey meter?
7. Was the utilization log properly filled out?
8. Did the radiographer have sufficient knowledge of safety rules? (Ascertained by oral questions.)
9. Was the radiographer working with defective equipment?
10. Did the radiographer properly survey the source projector and source tube and take a radiation reading 1 foot (0.3 m) in front of the source following the radiographic exposure?
11. Were radioactive isotopes stored properly and kept locked to prevent unauthorized removal?

EXHIBIT 1, continued

Yes

No

12. Was the storage area posted with "CAUTION (or DANGER) RADIOACTIVE MATERIAL" signs?
13. Did the radiographer possess a copy of the applicant's operating and emergency procedures and, as applicable, State or NRC rules and regulations for protection against radiation?
14. Were there any items of noncompliance other than those listed on this form? (If any, explain in remarks.)

Remarks \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



DATE

6/18/85

TELEPHONE OR VERBAL CONVERSATION RECORD

TIME

☐ A.M.  
☐ P.M.

☐ INCOMING CALL

☐ OUTGOING CALL

☐ VISIT

PERSON CALLING

Jack Davis

OFFICE/ADDRESS

KI

PHONE NUMBER

EXTENSION

PERSON CALLED

Jack Miller

OFFICE/ADDRESS

PHONE NUMBER

EXTENSION

CONVERSATION

SUBJECT

def letter

SUMMARY

requested additional info.

REFERRED TO:

ACTION REQUESTED

☐ ADVISE ME OF  
ACTION TAKEN.

INITIALS

DATE

ACTION TAKEN

INITIALS

DATE

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03706

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6/11/85

TELEPHONE OR VERBAL CONVERSATION RECORD

TIME

☐ A.M.  
☐ P.M.

☐ INCOMING CALL

☐ OUTGOING CALL

☐ VISIT

PERSON CALLING

Jack Miller

OFFICE/ADDRESS

Alicia

PHONE NUMBER

EXTENSION

609 296-0800

PERSON CALLED

John Doe

OFFICE/ADDRESS

KI

PHONE NUMBER

EXTENSION

CONVERSATION

SUBJECT

re Addit'l Info to Lic Application

SUMMARY

Item 2 - Partial exam not Field Exam  
Item 3 - Same.  
Item 6 - collection same for final documents  
Item 7 - remove adult.

will resubmit by end of week of June 15, 1985.

REFERRED TO:

ACTION REQUESTED

ACTION TAKEN

☐ ADVISE ME OF  
ACTION TAKEN.

INITIALS

DATE

INITIALS

DATE

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