

VOID SHEET

TO: License Fee Management Branch

FROM: RIII - _____

SUBJECT: VOIDED APPLICATION

Control Number: 301616

Applicant: X-R-I Testing

License Number: 21-05472-01

Docket Number: 030-04837

Date Voided: 7-25-96

Reason for Void: additional information

for control no. 399614

Signature Loren J. Hatcher Date 7-25-96

Attachment:
Official Record Copy of
Voided Action

FOR LFMB USE ONLY

- ☐ Refund Authorized and processed
☒ No Refund Due
☐ Fee Exempt or Fee Not Required

Comments: _____

Log completed ☒
Processed by: SAC 2/3/97

ML
30
50

050092

(FOR LFMS USE)
INFORMATION FROM LTS

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

PROGRAM CODE: 03320
STATUS CODE: 0
FEE CATEGORY: 30 2B
EXP. DATE: 20041031
FEE COMMENTS:
DECOM FIN ASSUR REGDT N

R4

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: X-R-I TESTING
RECEIVED DATE: 960722
DOCKET NO: 3004837
CONTROL NO.: 301616
LICENSE NO.: 21-05472-01
ACTION TYPE: AMENDMENT

Returned to
R III 7/31/96
Voided on sig. 7/25/96

2. FEE ATTACHED
AMOUNT: 9
CHECK NO.: 9

3. COMMENTS

SIGNED
DATE

B. LICENSE FEE MANAGEMENT BRANCH CHECK WHEN MILESTONE 03 IS ENTERED ✓

1. FEE CATEGORY AND AMOUNT: 30 2B
2. CORRECT FEE PAID, APPLICATION MAY BE PROCESSED FOR:
AMENDMENT ✓
RENEWAL _____
LICENSE _____
3. OTHER _____

SIGNED
DATE

AUG 06 1996

Log	<u>Jul 16 III</u>
Remitter	_____
Check No.	_____
Amount	_____
Fee Category	<u>30 2B</u>
Type of Fee	<u>Amnd</u>
Date Check Rec'd	_____
Date Completed	_____
By:	_____

1996 JUL 26 AM 10:51

Lockbox

CK. 24718 #720 rec'd/Deg by
Refund 10/2/96

LICENSE FEE REQUIREMENTS

LICENSE FEE AND DEBT COLLECTION BRANCH
DIVISION OF ACCOUNTING AND FINANCE
OFFICE OF THE CONTROLLER
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

X-RAY INDUSTRIES, INC.
ATTN: LARRY REDHAGE
1961 THUNDERBIRD
TROY, MICHIGAN 48084

TYPE OF ACTION

- ☐ NEW LICENSE
☐ RENEWAL OF LICENSE
☒ AMENDMENT TO LICENSE

REQUESTED DATE

6-26-96

LICENSE NUMBER

21-05472-01

CONTROL NUMBER

301616

I. APPLICATION FEE DUE

Your request for a licensing action is subject to the fee(s) in the category(ies) noted below in accordance with Section 170.31 of the enclosed Federal Register notice. Payment of the fee is required prior to the issuance of the license, renewal, or amendment.

FEE CATEGORY	APPLICATION	RENEWAL	AMENDMENT
30	\$	\$	\$ 720.00
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$

FEE(s) DUE \$ 720.00
PAYMENT RECEIVED \$ 0.00
AMOUNT DUE \$ 720.00

☒ Your request was received without the prescribed application fee.

☐ We received your Check No. _____ in the amount of \$ _____. Payment of the additional fee noted above is required.

☐ Your request will increase the scope of your license program. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(d)(2).

☐ Your license expired prior to the receipt of your application for renewal. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(a).

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

SIGNATURE - LICENSE FEE ANALYST

LFDCB

LFDCB

SHIRLEY CRUTCHFIELD

7/29/96

Distribution:

DATE

Pending Fee File OC/DAF/SF(LF-3 2.7)

LFARB R/F (2) Region 3

July 30, 1996

CMD: _____

LFDCB REVIEW

960731

MAIL CONTROL NO: 301616 DOCKET NO: 03004837 LICENSE NO: 21-05472-01
NAME: X-R-I TESTING REGION: 3 PROG CODE: 03320

DECOM FIN ASSUR REQD : N

PENDING FEE CATEGORIES: _____ STATUS: 0

FEE CATEGORIES: 30 2B ACTION TYPE: 4

REFUSAL TO PAY FEE: N COMMENTS: _____ EXP DATE: 20041031

DATE RECEIVED: 960722

DATE ENTERED: 960722

LAST MILESTONE COMPLETED: 23 DATE: 960725

MILESTONE

MILESTONE DATE

TICKLER DATE

03

960725

0 _____

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000 001

ERROR: You cannot enter a milestone on an action when its date is
LATER than the COMPLETION date for that action.



X-RAY INDUSTRIES, INC.

June 26, 1996

Mr. Bruce Carrico
Division Of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

A

**RE: Technical Assistance Request For Equipment Exemption:
License Number: 21-05472-01**

Dear Mr. Carrico:

I am responding to your letter of April 1, 1996 in order to restate XRI Testing's position and re-address the outstanding issues.

The first issue to address is the source model numbers supported by Amersham. XRI Testing currently has the following Source Model Number types: (1)- A424-7, which is an approved model number, (1) - A453-6 & (1) -A453-5. For source models A-453-6 and A-453-5 which may not meet the requirements as stated in your letter, XRI would like to submit a request at this time for an exemption from 10 CFR 34.20(c)(4).

The second issue is to establish the purpose for XRI Testings request for an exemption from 10 CFR 34.20, allowing for the continued use of the TECH/OPS 520 cobalt 60 exposure device. The necessity for this exemption request is due to the Heavy Walled material consistently being radiographed. Co60 is the only practical solution for this problem as IR 192 has approximately an effective range of only about 3 inches penetration. Much of the gamma type work received at XRI for testing is in excess of 4 inches.

The third issue was the concern about operational safety with the TECH/OPS 520 devices. The units are used in a controlled environment within the approved, permanent cells. After returning cobalt source to its housing, the device crank handle is locked prior to radiographer entering the cell, thus preventing any accidental exposures. As requested, this safety procedure (which has always been standard operating procedure with these units) has been included in Section 3 of XRI Testing's Emergency Operating Manual (See Attachment 1).

If you have any questions or need further clarifications please contact Kirk Thams (RSO) or myself at (810) 244-1542 or 244-1546.

Thank you,

Larry Redhage

Larry Redhage
X-Ray Industries, Inc.
Quality Systems Director
NRC Records Administrator

RECEIVED

JUL 19 1996

REGION III

JUL 19 1996

301616

DM: 7-19-96

XRI TESTING**Section 3.****ATTACHMENT 1****OPERATING AND EMERGENCY PROCEDURES
HANDLING AND USE OF LICENSED SEALED SOURCES****STEP "A" DAILY OPERATING PROCEDURE
PERMANENT UNIT****4.0 PERMANENT CELL OPERATION:**

- 4.0 Unlock gamma cell door and main door power interrupt lever.
 - a. (Lock door hasp and interrupt lever in open/on position).
 - b. With the following personnel monitoring devices:
 - (1) operating survey meter in hand,
 - (2) issued film badge,
 - (3) dosimeter and alarm ratemeter on person,
 - c. Enter cell provided a safe radiation level is indicated by the meter reading; and gamma alarm Tech/Ops Model 492C.
 - d. Entrance area readings should not exceed 2 MR/HR on survey meter.
- 4.2 Survey the projector on entry to determine that a safe storage condition exists.
 - a. Ten (10) milliroentgen per hour at one meter from any exterior surface of this unit or less is considered acceptable.
- 4.3 If drive cable isn't connected to source, connect it at this time.

Note: Ensure Drive Cable Is Connected Prior To Removing Shipping Plug To Install Guide Tubes)

- 4.4 Place the survey meter nearby where its reading can be observed.
 - a. Remove the shipping plug with the proper tools and affix the Source Guide Tubes and Source Stop Assembly.
 - b. Position source tip in normal work area of cell.

XRI TESTING**Section 3.****OPERATING AND EMERGENCY PROCEDURES
HANDLING AND USE OF LICENSED SEALED SOURCES****STF "A" DAILY OPERATING PROCEDURE
PERMANENT UNIT**

4.5 Make daily inspection of exposure device IAW/ gamma card check list.

- a. Check to be sure that no one is in the gamma cell.
- b. Exit the cell, and close door.
- c. Unlock the crank control assembly and expose source.
- d. Record daily checks on laboratory card.
- e. Check the gamma alarm system for proper operation of green and red lights and audible alarm interlocks.
- f. Survey the adjacent area around the gamma cell for excessive radiation.

- (1) If no abnormal conditions exist, commence operations.
- (2) All area check points should have readings below 2 MR/HR.

g. At the end of each exposure:

- (1) crank the source drive control to return the source to a safe "stored" position prior to opening the gamma cell door.

Note: When Using Tech/Ops 520 Cobalt Exposure Device, Radiographer Shall Lock Drive Cable Crank Prior To Entering Exposure Cell. This Drive Cable Operating Procedure Is Mandatory Because It Forms Is An Integral Part Of Our License Agreement With The NRC Which Allows XRI An Exemption For Continuous Utilization Of These Exposure Devices.

- h. Enter the cell each time with survey meter in hand to assure that safe source storage has been achieved and excessive radiation levels are not present.
- i. Survey both the guide tubes and storage projector.

4.6 It is the radiographer's responsibility to maintain complete control over the exposure device and it's crank control device at all times.

XRI TESTING SECTION 3

OPERATING AND EMERGENCY PROCEDURES

STEP "A" DAILY OPERATING PROCEDURE PERMANENT UNIT

- a. Should it become necessary for the radiographer to temporarily leave the immediate area, the cell door should be locked.
- 4.7 At the end of the work for this unit or the work shift:
- a. lock control unit, enter the gamma cell with survey meter in hand.
 - b. survey source guide tubes and projector to determine complete return to the "safe" position of the source.
 - c. Remove guide tubes and replace shipping plug in unit.
 - d. Survey and lock projector, record readings on laboratory card.
 - e. Check to assure that no one has entered the gamma cell, exit the cell, close and lock the cell door and power interrupt lever for main door.
 - f. Return keys to key box, return survey meter to storage area, record dosimeter reading.

XRI TESTING**Section 3.****OPERATING AND EMERGENCY PROCEDURES
HANDLING AND USE OF LICENSED SEALED SOURCES****STEP "A" DAILY OPERATING PROCEDURE
PERMANENT UNIT**

4.5 Make daily inspection of exposure device IAW/ gamma card check list.

- a. Check to be sure that no one is in the gamma cell.
- b. Exit the cell, and close door.
- c. Unlock the crank control assembly and expose source.
- d. Record daily checks on laboratory card.
- e. Check the gamma alarm system for proper operation of green and red lights and audible alarm interlocks.
- f. Survey the adjacent area around the gamma cell for excessive radiation.

- (1) If no abnormal conditions exist, commence operations.
- (2) All area check points should have readings below 2 MR/HR.

g. At the end of each exposure:

- (1) crank the source drive control to return the source to a safe "stored" position prior to opening the gamma cell door.

Note: When Using Tech/Ops 520 Cobalt Exposure Device, Radiographer Shall Lock Drive Cable Crank Prior To Entering Exposure Cell. This Drive Cable Operating Procedure Is Mandatory Because It Forms Is An Integral Part Of Our License Agreement With The NRC Which Allows XRI An Exemption For Continuous Utilization Of These Exposure Devices.

- h. Enter the cell each time with survey meter in hand to assure that safe source storage has been achieved and excessive radiation levels are not present.
- i. Survey both the guide tubes and storage projector.

4.6 It is the radiographer's responsibility to maintain complete control over the exposure device and it's crank control device at all times.

**XRI TESTING
SECTION 3**

OPERATING AND EMERGENCY PROCEDURES

**STEP "A" DAILY OPERATING PROCEDURE
PERMANENT UNIT**

- a. Should it become necessary for the radiographer to temporarily leave the immediate area, the cell door should be locked.
- 4.7 At the end of the work for this unit or the work shift:
- a. lock control unit, enter the gamma cell with survey meter in hand.
 - b. survey source guide tubes and projector to determine complete return to the "safe" position of the source.
 - c. Remove guide tubes and replace shipping plug in unit.
 - d. Survey and lock projector, record readings on laboratory card.
 - e. Check to assure that no one has entered the gamma cell, exit the cell, close and lock the cell door and power interrupt lever for main door.
 - f. Return keys to key box, return survey meter to storage area, record dosimeter reading.

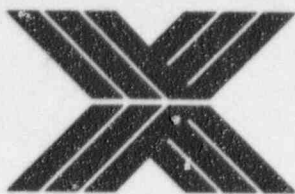


UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

John,

XRI sent this directly to
HQ. I assume you still
have a licensing action
on this. It needs to
come to us on another TAE

Bruce



X-R-I TESTING
DIVISION OF X-RAY INDUSTRIES, INC.

January 22, 1997

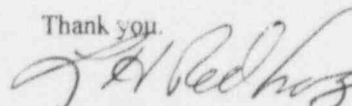
Mr. Loren Hueter
Materials Licensing Section
U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, IL 60532-4351

Dear Loren:

Below are the open items regarding XRI Testing's Exemption request for our Tech/Ops 520 Co60 exposure devices that you asked me to address. I have attached with this letter excerpts from XRI Testing's Emergency Operating Manual (Section 3 page 6 and Section 11 page 1)

1. Confirm that XRI will discontinue the use of the Tech/Ops 520 Co60 exposure devices on or before December 10, 2002.
 - * XRI Testing agrees to cease and desist all operations utilizing Tech/Ops 520 Cobalt 60 exposure devices on or before December 10, 2002.
2. Provide a procedure or a commitment to observe during quarterly audits, the locking of the device crank handle each time the source is retracted to the fully shielded position by the authorized radiography personnel while using the Tech/Ops 520 Co60 Exposure device.
 - * Section 11 of XRI Testing's Emergency Operating Manual (See Attachment 1) directs management to perform quarterly, Tech/Ops 520 Co60 exposure device audit on all radiographers who utilize the equipment, to include observation of properly locking the control handle and key removal prior to entering the exposure cell.
3. Modify procedure to require the use of two radiography personnel at least one of which must be a radiographer as defined in 10 CFR 34.2, when operating the Tech/Ops 520 Co60 exposure device.
 - * XRI's procedure Section 3 (See Attachment 2) will require that 2 qualified individuals must be present (at least one must be a radiographer and the second may be an assistant radiographer) during the operation of the Tech/Ops 520 exposure device.
4. Provide a procedure or describe an engineered safety feature that will be used to prevent the crank handle locking device from being unlocked, except by the radiographer using the Tech/Ops 520 exposure device.
 - * XRI's procedure in Section 3 of Emergency Operating Manual directs the radiographer to remove the key from the locking handle when not physically present to prevent unauthorized personnel from using exposure device.
5. Confirm that the NRC may delete Amersham Source Model A-453-2 from condition 10.0 of XPI's license, which was not addressed as being approved nor was it in the exemption request.
 - * XRI requests that the NRC delete Amersham Source Model A-453-2 from its license.

Thank you.


Larry Redhage
NRC Records Administrator

RECEIVED
JAN 23 1997
REGION III

Encl: Attachment 1, Section 11 pg. 1.
Attachment 2, Section 3 pg. 6

JAN 23 1997

ATTACHMENT 1.

XRI TESTING
SECTION 11OPERATING AND EMERGENCY PROCEDURES
INSPECTIONS1.0 INSPECTIONS:

- 1.1 In order to maintain a high level of quality in XRI's Nuclear Safety Program, personnel and site inspections shall be performed on a regular basis.
- 1.2 The types of inspections are:
 - a. Corporate Management Monitoring Program
 - b. Quarterly Management (Surveys) Audits
 - c. NRC unannounced visits/audits

2.0 AUDIT DESCRIPTIONS:

- 2.1 In addition to unannounced inspections by the NRC Inspectors, periodic unannounced inspections will be made by the Corporate Management and Lab Management.
 - a. Corporate Management Monitoring Program: As a minimum, the Corporate Management shall perform an audit on the entire NRC safety program on an annual basis at each lab facility.
 - (1) Areas to be monitored: training, calibration records, shipping & receiving records, utilization logs, equipment maintenance, film badge reports, etc.
 - b. Quarterly Management Surveys: Each crew will be inspected regularly by the Company's Radiation Safety Officer, Assistant Radiation Safety Officer or qualified senior lab supervisors
 - (1) Such inspection to be made at least once every quarter on all personnel who work with radioactive sources.
 - (a) Radiographers who operate the Tech/Ops 520 Co60 exposure device must have quarterly management surveys accomplished while using the Tech/Ops 520 exposure devices to ensure they are in compliance with Section 3. paragraph 4.5 note of the Emergency Operating Manual.
 - (b) Management Survey will include the observation of radiographer locking control cable, removing key prior to entering exposure cell.

ATTACHMENT 2.**XRI TESTING
Section 3.****OPERATING AND EMERGENCY PROCEDURES
HANDLING AND USE OF LICENSED SEALED SOURCES****STEP "A" DAILY OPERATING PROCEDURE
PERMANENT UNIT**

4.5 Make daily inspection of exposure device IAW/ gamma card check list.

- a. Check to be sure that no one is in the gamma cell.
- b. Exit the cell, and close door.
- c. Unlock the crank control assembly and expose source.
- d. Record daily checks on laboratory card.
- e. Check the gamma alarm system for proper operation of green and red lights and audible alarm interlocks.
- f. Survey the adjacent area around the gamma cell for excessive radiation.
 - (1) If no abnormal conditions exist, commence operations.
 - (2) All area check points should have readings below 2 MR/HR.
- g. At the end of each exposure:
 - (1) crank the source drive control to return the source to a safe "stored" position prior to opening the gamma cell door.

Note: When Using the Tech/Ops 520 Cobalt Exposure Device, there shall be 2 qualified personnel present during operations (One must be a radiographer and the other may be an assistant radiographer). During radiographic operations using the Tech/Ops 520, the radiographer shall lock drive cable crank and remove key prior to entering exposure cell to prevent unauthorized personnel from tampering with controls. The drive cable operating procedure is mandatory because it forms an integral part of XRI Testing's license agreement with the NRC, allowing XRI an exemption for continuous use of these exposure devices.

- h. Enter the cell each time with survey meter in hand to assure that safe source storage has been achieved and excessive radiation levels are not present.
 - i. Survey both the guide tubes and storage projector.
- 4.6 It is the radiographer's responsibility to maintain complete control over the exposure device and it's crank control device at all times.

CONVERSATION RECORD

TIME

DATE

1-15-97

☐ VISIT☐ CONFERENCE☒ TELEPHONE☐ INCOMING☒ OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT

ORGANIZATION (OFFICE, DEPT. ETC.)

TELEPHONE NO.

Anthony Kirkwood

PMNS/NMSS

301-
415-6140

SUBJECT

CN 399614 TAR Response

SUMMARY

Mr Kirkwood has no problem with one of the two radiography personnel being an assistant radiographer that is required to be involved when the Amerchar 520 apparatus device is being operated. This was for clarification as the TAR response referred to two "operators" in one section and to two radiographers in another section.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

Loren J. Hunter

1-15-97

ACTION TAKEN

SIGNATURE

TITLE

DATE

CONVERSATION RECORD

TIME

DATE

1-16-97

☐ VISIT☐ CONFERENCE☒ TELEPHONE☐ INCOMING☒ OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT

ORGANIZATION (OFFICE, DEPT. ETC.)

TELEPHONE NO.

Larry Redhage

X-R-I Testing

810-244-1546

SUBJECT

FAX 708-424-0290

FAX 810-262-4422

CN 399614 Reopening request for exemptions from 10 CFR 34.20(a) and (c).

SUMMARY

discussed that following our review of commitments on records provided in license letters dated October 17 and December 10, 1995 and January 8 and June 26, 1996, the following matters remain to be addressed:

1. Confirm that XRI will discontinue use of the AMSHM 520 device on or before December 10, 2002.
2. Provide a procedure or a commitment to observe during quarterly audits, the locking of the device crank handle each time the source is retracted to the fully shielded position by the authorized radiography personnel while using the Amersham Model 520 exposure device.
3. Modify procedures to require the use of two radiography personnel, at least one of which must be a radiographer as defined in 10 CFR 34.2, when operating the Amersham Model 520 exposure device.

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

Loren Hunter

1-14-97

ACTION TAKEN

SIGNATURE

TITLE

DATE

4. provide a procedure or describe an engineered safety feature that you will use that would prevent the crank handle locking device from being unlocked, except by the radiographer using the amersham Model 528 device
5. confirm that we may delete the amersham model A-453-2 source from condition 10.0. of your license. It was not addressed as being approved, nor was an exemption requested for it. If such a source is still in your possession, so state as we would need to authorize it for storage only, incident to disposal.
6. Please respond in 15 days and reference CN 399614.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

July 23, 1996

Kirk A. Thams
Radiation Safety Officer
X-R-I Testing
Division of X-Ray Industries,
Incorporated
1961 Thunderbird
Troy, MI 48084

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE
(Letter Dated June 26, 1996)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

☐ New License ☒ Amendment ☐ Renewal
☐ Termination ☐ Auth User (Amendment not required) ☐ QMP Revision
☐ Other _____

Administrative deficiencies were identified during this initial review as outlined below. However, it should be noted that a technical review may identify additional omissions in the submitted information, technical issues that require additional information, or policy/technical issues that require coordination with headquarters or other NRC regional offices.

It appears that your request is routine (see 1-3 below as, applicable); however, your request is incomplete.

Incomplete information is as follows: In order for us to complete the request, the required fee is necessary. Please contact our License Fee & Debt Collection Branch, located in our Headquarters office, as referenced below.

1. New and amendment actions are normally processed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance.
2. Renewal actions are normally processed within 180 days, however under timely filing (before expiration) you may continue to operate under your existing license.
3. Termination actions are normally processed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount.

If you have a compelling safety or business-related reason for requesting expedited review, please contact the Materials Licensing Branch at (708) 829-9887. We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number.

Nuclear Materials Support Branch