

January 28, 1997

Ms Linda Howell  
NRC Region 4 Office  
611 Ryan Plaza Dr. Ste 400  
Arlington, TX 76011

Reference: NRC License 49-27356-01  
Control No. 466139

Dear Ms Howell:

On January 10, 1997, I performed a follow-up Radiation Safety Program Audit at Western Industrial X-ray Inspection Co., Inc. in Evanston, Wyoming. Enclosed are copies of the completed audit checklist.

Radiation Safety Program: each item on the checklist was addressed and supporting documentary evidence was reviewed.

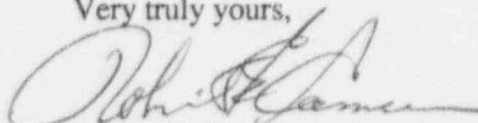
No nonconformance findings.

A Field Audit could not be performed as there were no field operations being conducted during this time period.

Results of my audit were discussed with Mr. Heath the Radiation Safety Officer, whom I found to be very cooperative during this audit. All supporting documentary evidence (records, reports, etc.) I requested were made readily available.

This audit report is respectfully submitted.

Very truly yours,

  
Robert E. Cameron  
General Manager

REC/kw

Encl.  
cc: R. Heath

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# RADIATION SAFETY PROGRAM AUDIT

Facility: Western Industrial X-ray Inspection Co., Inc.

Audit Date: January 10, 1997

Address: P.O. Box 468

Type of Audit: Initial ☒ Follow-up

5354 North Highway 89

Auditor: Robert E. Cameron

City: Evanston

Affiliation: Hellier Associates, Inc. - South Central

State & Zip: Wyoming 82931-0468

License # 49-27356-01

☒ NRC State

Contact/Title: Raymond Heath

Phone #: (307)789-0777

Expiration Date: August 31, 1996

Radiation Safety Officer

Expiration date extended-NRC letter July  
25, 1996 - Control # 466139

Type of Licensed Activity:

☒ Ir192 Max. # Ci. 120

Co60 Max. # Ci. NA

Cs137 Max. # Ci. NA

X-Ray Max KvP NA

Summary of Audit:

1. Program Audit: No findings
2. Field Audit: No field operations being performed; therefore a field audit could not be performed.

Signature of Auditor:



Date:

January 29, 1997

**Monitored Personnel**

[illegible]

## RADIATION SAFETY AUDIT CHECKLIST

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Facility: W.I.X. Inspection, Inc.


Auditor: Robert E. Cameron

Audit Date: January 10, 1997

Item	Requirement	Reference	Satis	Unsat	Finding	Comments
1	Posting of Notices to Workers: Parts 19 & 20; License and amendments; Operating procedures; Notices of violations; NRC-3 Form.	19.11	X			NRC Form 3, license, and notice where documents are available for examination posted in two locations and in mobile units
2	Notification and reports to individuals: Exposure data; Annual report to workers; Reports to terminated workers.	19.13	X			Filed in individual's folder. Reviewed files of all active and one terminated personnel
3	Radiation Protection Program: Developed, documented, and implemented.	20.1101	X			
4	Periodic review (at least annually) of program.	20.1101	X			Last review 07/13/96 - Proposed revisions have been written
5	Control access to high radiation areas.	20.1601	X			No permanent installations. Field operations are controlled by radiographer
6	Posting of High Radiation Area	20.1902	X			
7	Posting of Radiation Area	20.1902	X			
8	Posting of each storage area for sealed sources.	20.1902	X			
9	Labeling of containers. "Caution - Radioactive Material" or "Danger - Radioactive Material.	20.1904	X			
10	Procedure for Receipt and Disposal of Sealed Sources.	20-1906	X			Uses Industrial Nuclear Company's QC Procedure 3.2 Rev 1, dated 08/31/92
11	Records of audits and reviews of program content and implementation.	20-2102	X			
12	Records of surveys and calibrations.	20.2103	X			

Item	Requirement	Reference	Satis	Unsat	Finding	Comments
13	Determination of prior occupational dose. NRC Form 4 or equivalent.	20.2104	X			
14	Records of individual monitoring results. NRC Form 5 or equivalent.	20.2106	X			<i>Use reports from Radiation Detection Company which contains all required data.</i>
15	Program for training Radiographers and Radiographer's Assistants. a) Initial training; b) Periodic training; c) On-the-job training.	34.11	X			
16	Means of determining radiographer's knowledge and understanding of and ability to comply with O & E procedures.	34.11	X			<i>Examinations and results filed in each individual's folder</i>
17	Means of determining radiographer's assistant's knowledge and understanding of and ability to comply with O & E procedures.	34.11	X			<i>Examinations and results filed in each individual's folder.</i>
18	Internal audit: Observation of each radiographer and radiographer's assistant during an actual radiographic operation. Conducted at least every three months.	34.11	X			<i>Audit report included in individual's folder.</i>
19	Organizational Structure: Including delegations of authority and responsibility for operation of the program.	34.11	X			
20	Procedure for Leak Testing of Sealed Sources	34.20	X			
21	Limits of levels of radiation for storage containers: Maximum of 200 mR/hr at the surface and 10 mR/hr at one meter from any exterior surface.	34.21	X			
22	Each exposure device shall have a lock or outer locked container.	34.22	X			
23	Each storage container and source changer shall have a lock or outer locked container.	34.22	X			
24	Storage Precautions: Locked exposure devices and storage containers shall be physically secured to prevent tampering or removal by unauthorized personnel.	34.23	X			

Item	Requirement	Reference	Satis	Unsat	Finding	Comments	Page 5 of 6
25	Radiation Survey Instruments: Calibrated at intervals not to exceed three months.	34.24	X			<i>Calibrated by Met-Chem Testing Labs. Reports reviewed on eight survey meters.</i>	
26	Leak Testing of Sources: Interval not to exceed 6 months.	34.25	X			<i>Leak tests performed by Industrial Nuclear Corporation.</i>	
27	Quarterly Inventory: To account for all sealed sources received and possessed.	34.26	X				
28	Utilization Logs: Description of exposure device or storage container containing a sealed source; identity of Radiographer to whom assigned; and site where used, and dates used.	34.27	X				
29	Inspection and maintenance of exposure devices, storage containers, and source changers. Performed prior to use each day it is used.	34.28	X			<i>Reported on Daily Utilization Log and Dosimeter Log Reports.</i>	
30	Permanent radiographic Installations: Entrance controls per 20.1601 or; entrance equipped with both visible and audible alarms.	34.29	NA			<i>No permanent installations.</i>	
31	Alarm system tested at intervals not to exceed three months, or the first use thereafter of the source in the installation.	34.29	NA			<i>No permanent installations.</i>	
32	Report to NRC within 30 days if: a) there is unintentional disconnection of source pigtail from drive cable; b) source cannot be retracted to its fully shielded position; c) any component to properly perform its intended function.	34.30	X				
33	Radiographer Training: a) instructed in subjects in Appendix A of Part 34; b) Copies of and instruction in NRC Parts 19,20,34; c) Demonstrated competence to use equipment safely; d) Successful completion of written test and field examination.	34.31	X			<i>Examination results filed in each individual's folder.</i>	
34	Radiographer's Assistant Training: a) Copies of and instruction in O & E Manual; b) demonstrated competence to use, under the personal of supervision of the radiographer, equipment safely; c) Successful completion of written test and field examination.	34.11	X			<i>Examination results filed in each individual's folder.</i>	

Item	Requirement	Reference	Satis	Unsat	Finding	Comments	Page 6 of 6
35	Pocket Dosimeter: 0 - 200 mR; Recharged at start of each shift; Read and exposure recorded at the end of each shift.	34.33	X			Recorded on Daily Utilization Inspection and Dosimeter Log.	
36	Pocket Dosimeter checked annually for correct response to radiation ( $\pm 30\%$ of true radiation exposure).	34.33	X				
37	Alarm Rate Meter: Set to alarm at 500 mR/hr; checked for proper function at start of each shift.	34.33	X				
38	Calibrated annually for correct response to radiation ( $\pm 20\%$ of true radiation dose rate).	34.33	X			Calibrated by Met-Chem Testing Laboratories.	
39	Film Badge or TLD: Assigned to and worn by only one individual.	34.33	X				
40	Survey Meters: At least one calibrated and operable survey meter available at each radiographic operation.	34.43	X				
41	Survey made after each exposure to include entire circumference of the exposure device and the entire length of the source guide tube.	34.43	X				
42	Survey made when exposure device is placed in a storage area.	34.33	X				
43	Supervision of Radiographer's Assistant: Radiographer's personal presence at the site; Radiographer must be able to give immediate assistance if required; Radiographer must watch assistant's performance of operations.	34.44	X				
Notes:  No findings during the audit. A field audit could not be performed as there were no field operations being conducted.							
Signature of Auditor						Date 01/24/97	