

SAFETY AND COMPLIANCE INSPECTION

1. LICENSEE

U. S. DOT FHA
21400 Ridge Top Circle
Sterling, VA 27170

2. REGIONAL OFFICE

REGION II
US NUCLEAR REGULATORY COMMISSION
ATLANTA FEDERAL CENTER
61 FORSYTH ST SW STE 23T85
ATLANTA, GA 30303-3415REPORT NUMBER(S) **00-01**

3. DOCKET NUMBER(S)

030-06627

4. LICENSE NUMBER(S)

45-13691-01

5. DATE(S) OF INSPECTION

11-02-2000**LICENSEE:**

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

- ☒ 1. Based on the inspection findings, no violations were identified.
- ☐ 2. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, NUREG-1600, to exercise discretion, were satisfied.
- _____ non-cited violation(s) were discussed involving the following requirement(s):
- _____
- ☐ 3. During this inspection certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which is required to be posted in accordance with 10 CFR 19.11.

STATEMENT OF CORRECTIVE ACTIONS

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE	DATE
LICENSEE			
NRC INSPECTOR	Jose M. Diaz Velez	/RA/	11/2/2000

APPENDIX A
FIXED AND PORTABLE GAUGE INSPECTION RECORD (IP 87114)

REGION II

Insp. Report #	00-01	License #	45-13691-01		Docket #	030-06627	
Licensee Name	US Department of Transportation, Federal Highway Administration, Eastern Fed. Lands Highway Division						
Street Address	21400 Ridgetop Circle						
City, State, Zip	Sterling, Virginia 22170						
Location (Authorized Site) Being Inspected	Federal Highway Administration, 112 Industrial Park, Sevierville, Tennessee						
Licensee Contact Name		Paul Clabo, Materials Tech.			Phone #	865.453.7123	
Priority	5	Program Code	03121		Description	Measuring Systems Portable Gauges	
Date of Last Inspection:		4/21/1995		Date of This Inspection		11/02/2000	
Type of Insp.	Announced		Routine	X	Initial		
	Unannounced	X	Special				
Next Insp. Date	11/05	Normal	X	Reduced		Extended	
Justification for change in normal inspection frequency:		No field inspection performed!, activities conducted under this program are very limited, must not let it go for 7 years with out inspection, licensee is evaluating the possibility of terminating the license.					
Summary of Findings and Actions							
No violations, Clear 591 or letter issued			X	Non-cited violations			
Violation(s), 591 issued			Violation(s), letter issued				
Follow up on previous violations:							
Inspector - Printed Name		José M. Díaz Vélez, Health Physicist Materials Licensing/Inspection Branch 2					
- Signature		/RA/			Date	11/21/2000	
Approved - Printed Name		Jay L. Henson, Chief Materials Licensing/Inspection Branch 2					
- Signature		/RA/			Date	11/27/00	

PART I-LICENSE, INSPECTION, INCIDENT/EVENT, AND ENFORCEMENT HISTORY		
1.	AMENDMENTS AND PROGRAM CHANGES	
License amendments issued since last inspection, or program changes noted in the license.		
AMENDMENT #	DATE	SUBJECT
16	06/1995	Add Location of Use

2.	INSPECTION AND ENFORCEMENT HISTORY
Unresolved issues; previous and repeat violations; Confirmatory Action Letters; and orders.	
<p>Inspection of 4/21/1995:</p> <ul style="list-style-type: none"> • Violation A, Permanent storage facility not listed on license (LC#10) -- CLOSED • Violation B.1, Used incorrect hazard class label on packages (10 CFR 71.5, 49 CFR 172.402(b)) -- CLOSED • Violation B.2, RQ Markings on packages (10 CFR 71.5, 49 CFR 172.324(b)) -- CLOSED • Violation B.3, Shipping paper not including hazard class on the proper shipping name (10 CFR 71.5, 49 CFR 172.202) -- CLOSED • Violation B.4, Shipping paper not including RQ letters on the proper shipping name (10 CFR 71.5, 49 CFR 172.203(c)) -- CLOSED <p>Inspection of 2/28/1990: Note: One violation cited in an NRC form 591 (not legible, unable to determine the violation from field notes).</p>	

3.	INCIDENT/EVENT HISTORY
List any incidents or events reported to NRC since the last inspection. Citing "None" indicates that regional event logs, event files, and the licensing file have no evidence of any incidents or events since the last inspection.	
None.	

PART II - INSPECTION DOCUMENTATION

NOTE: References that correspond to each inspection documentation topic are in Inspection Procedure 87114, Appendix B, "Fixed and Portable Gauge Inspection References."

The inspection documentation part is to be used by the inspector to assist with the performance of the inspection. Note that not all areas indicated in this part are required to be addressed during each inspection. However, for those areas not covered during the inspection, a notation ("Not Reviewed" or "Not Applicable") should be made in each section, where applicable. All areas covered during the inspection should be documented in sufficient detail to describe what activities and procedures were observed and/or demonstrated. In addition, the types of records that were reviewed and the time periods covered by those records should be noted. If the licensee demonstrated any practices at your request, describe those demonstrations. The observations and demonstrations you describe in this report, along with measurements and some records review, should substantiate your inspection findings. Attach copies of all licensee documents and records needed to support violations.

1. ORGANIZATION AND SCOPE OF PROGRAM

Management organizational structure; authorized locations of use, including field offices and temporary job sites; type, quantity, and frequency of byproduct material use; staff size; delegation of authority.

The inspector interviewed the licensee's Assistant to the Radiation Safety Officer (ARSO) and determined that the licensee organizational structure is as follows. Laurin Laneman, Materials Engineer⇒Marcel Vivier, RSO⇒Paul Clabo, Materials Tech. (ARSO and Gauge user), Leonard Inwood⇒Materials Tech. (Gauge User). Based on a review of the licensee's license, the inspector determined that the licensee is authorized for the possession and use of moisture and density devices (gauges) registered pursuant to 10 CFR 32.210 or equivalent. Based on direct observations at the site, the inspector determined that the licensee currently possess two gauges (Boart Longyear--Cambell Pacific Nuclear Models M3 and M2), Sn(s): M30079713 and M25066149 (respectively), containing 10 millicuries (mCi) Cesium-137 and 50 mCi of Americium-241/Be. The inspector also determined that the licensee is authorized to store licensed materials at two permanent locations and temporary jobsites. Based on discussions with the ARSO, the inspector confirmed that the permanent facilities remain at 21400 Ridgetop Circle, Sterling Virginia and 112 Industrial Park, Sevierville, Tennessee, and that the licensee has not added any new permanent storage facilities since the last inspection. The inspector also determined that the licensee added a permanent facility as a corrective action for the previous inspection, therefore, Violation A for inspection held on April 21, 1995 is considered CLOSED. The licensee currently stores materials only at the Tennessee location. The licensee has not used the license material on the field during the last 2 years, but has conducted limited use (inspection during inventory, leak test and battery charging) at the storage location. The inspector also determined that the licensee had reduced substantially the amount of devices possessed under this license by transfer to authorized recipients. The inspector noted that the licensee reduced the number of gauges from 24 to 2 since the last inspection. The inspector also noted that the licensee also reduced the number of gauge users within the program.

2. MANAGEMENT OVERSIGHT

Management support to radiation safety; Radiation Safety Officer (RSO); program audits or inspections; as low as is reasonable achievable (ALARA) reviews; control and supervision by authorized users.

Based on discussions with the ARSO, it appears that management has provided all the necessary support for the program that the RSO has needed, including funds for the proper disposal of gauges, maintenance of equipment and continuation of the radiation protection program at its limited scope. Since the RSO was not available at the time of the inspection, the inspector questioned the ARSO about his knowledge and involvement of the program. The inspector learned that the ARSO was assisting the RSO in all areas and was completely knowledgeable about the program. Based on discussions with the ARSO, and direct observations, the inspector determined that the licensee radiation safety program incorporated reasonable ALARA considerations, and that administrative controls (of licensed

2.	MANAGEMENT OVERSIGHT
Management support to radiation safety; Radiation Safety Officer (RSO); program audits or inspections; as low as is reasonable achievable (ALARA) reviews; control and supervision by authorized users.	
materials) were adequately exercised by the licensee, however, since the programs has not conducted field operations in the last two years, the inspector determined that the inspection frequency should be maintained as normal because the licensee may become more active or even decide cease activities, requiring the implementation of the timeliness decommissioning rule. The control of authorized users is very well exercised since the program is very small.	
No violations of NRC regulatory requirements were identified in this area.	

3.	FACILITIES
Facilities as described; uses; control of access; engineering controls; calibration facilities; shielding.	
The inspector toured the licensee's facilities and determined that they were in conformity with the license application and generally accepted designs. The inspector also determined that gauge storage area was secure and properly posted. The inspector interviewed the ARSO and based on that interview, the inspector determined that keys to the storage area were controlled by him or the RSO. The licensee trailer as the device storage building at the site. Based on direct observations, the inspector determined that the facility was adequate, and well designed to ensure the protection of radiation workers and members of the public while material is in storage.	
No violations of NRC regulatory requirements were identified in this area.	

4.	EQUIPMENT AND INSTRUMENTATION
Operable and calibrated survey instruments; procedures; 10 CFR Part 21 procedures.	
The inspector interviewed the RSO and reviewed licensee emergency procedures. Based on that interview and review of written emergency procedures, the inspector determined that emergency procedures were adequate. Although not required by the license, the licensee obtained a Trox A Lert survey instrument from Troxler Electronic Labs in order to assess any emergency situation. The inspector noted that the survey instrument was not within calibration, but because the instrument has not being used for compliance with 10 CFR part 20 surveys this was not identified as a violation. Based on direct observations, the inspector determined that the instrument was operational and that it probably will be adequate to determine if contamination is present in the event of an accident.	
No violations of NRC regulatory requirements were identified in this area.	

5.	MATERIAL USE, CONTROL, AND TRANSFER
Materials and uses authorized; security and control of licensed materials; and procedures for receipt and transfer of licensed material.	

The inspector discussed with the ARSO the current scope of licensed activities and determined that the licensee considering terminating the license but has not made a determination yet. The ARSO indicated that they are currently using third party companies to conduct their materials testing, but it appears that management still want to maintain the capability of conducting their own test if needed. The inspector was unable to visit a temporary job site to review field operations, but observed that the ARSO while he was handling the gauge. Based on those direct observations, the inspector determined that the ARSO handled the gauge in an adequate manner and observed ALARA practices. The inspector also observed that the individual used his dose monitoring badge while performing these activities. The inspector observed the licensee's gauge transport container was locked, and that the gauge was locked at the handle preventing the accidental or unauthorized exposure of the source. The inspector observed the package and determined that it was properly labeled and in excellent condition for transportation. The inspector observed the gauge and determined that it was properly marked.

No violations of NRC regulatory requirements were identified in this area.

6.	AREA RADIATION SURVEYS AND CONTAMINATION CONTROL
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Radiological surveys; leak tests; inventories; handling of radioactive materials; records; contamination control; public doses.

The inspector reviewed the leak tests record of the gauges, and the inventory records and based on those reviews, determined that the licensee leak tested the gauges at six month intervals and inventoried the gauges more often (about monthly because of the need to recharge the batteries so the equipment do not loose the calibration data). The inspector noted that the licensee's inventory reflected the proper disposal of previously owned gauges. The inspector noted that leak test samples were analyzed by the National Institute of Standards and Technology, Gaithersburg, Md.

No violations of NRC regulatory requirements were identified in this area.

7.	TRAINING AND INSTRUCTIONS TO WORKERS
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Training and retraining requirements and documentation; interviews and observations of routine work; staff knowledge of all routine activities; 10 CFR Parts 19 and 20 requirements; emergency response.

The inspector reviewed the license application, the license, licensee training records (Certificates) and interviewed the ARSO. Based on those reviews and the interview, the inspector determined that users had received the manufacturer's user training. In addition, the inspector determined that users received refresher HAZMAT training in 1999.

No violations of NRC regulatory requirements were identified in this area.

8.	RADIATION PROTECTION
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Radiation protection program with ALARA provisions; access control; dosimetry; exposure evaluations; dose and survey records and reports; annual notifications to workers; bulletins and other generic communications.

The inspector discussed the implementation of the radiation protection program with ARSO. Based on those discussions, the inspector determined that the licensee uses Radiation Detection Co., TLD type, and that authorized users are required to wear the dosimeter when performing any licensed activity and that the licensee exchange them at quarterly intervals. The inspector reviewed dosimetry records for the years 1996, 1997, 1998, 1999, and up to 07/2000, and determined that all reports registered "ND" or not detectable. Based on the limited scope of operations and dosimetry records, the inspector determined that the licensee was in compliance with dose limits to radiation workers and members of the public. The ARSO indicated to the inspector that the licensee receives NRC communications, reviews them and use or implement the applicable ones.

No violations of NRC regulatory requirements were identified in this area.

9.	RADIOACTIVE WASTE MANAGEMENT
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Disposal or transfer of sources; packaging, control, and tracking procedures; records.

The inspector determined that the licensee performed the disposal of several gauges back to the manufacturer (Troxler). The inspector observed shipping papers used by the licensee to transfer several gauges to the manufacturer. Based on the information recorded, and discussions with the licensee's ARSO the inspector determined that the licensee properly transferred gauges to the manufacturer. The inspector also noted that the licensee transferred several gauges to local companies. Based on copies of the materials licenses for the local companies, the inspector determined that the licensee's transfers of materials to authorized recipients was in accordance with the regulations. The inspector also noted that the licensee maintained copies of the last leak test performed to disposed devices, documenting the integrity of sources. No violations of NRC regulatory requirements were identified in this area.

10.	DECOMMISSIONING
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Records relevant to decommissioning; decommissioning plan/schedule; notification requirements; cost estimates; funding methods; financial assurance; and Timeliness Rule requirements; changes in radiological conditions since decommissioning plan was submitted.

Based on direct observations, the inspector determined that the licensee maintained adequate records pertinent to future decommissioning of the facilities, including document to pertaining the sealed sources integrity (Leak test records) and history of sealed sources possessed under this license.

11.	RADIATION TRANSPORTATION
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Quantities and types of licensed material shipped; packaging design requirements; shipping papers; hazardous materials HAZMAT communication procedures; return of sources; procedures for monitoring radiation and contamination levels of packages; HAZMAT training; and records and reports.

Although no transportation activities have being conducted since 9/98 (Shipment of materials to a gauge manufacturer) the inspector discussed with the ARSO transportation activities. Based on those discussions, the inspector determined that the licensee used of shipping papers when performing routine transportation activities. The inspector determined that licensee transportation procedures were adequate, and that proposed shipping paper will include all necessary information. The inspector observed the licensee's gauges while in storage and determined that the containers used to transport the gauges were in excellent condition for transportation, and were properly labeled. The inspector determined that the licensee transports the gauges locked at the handle, and at the container, and properly secured to vehicles. The inspector also determined that authorized users are trained in the HAZMAT as required by DOT (last taken in 1999). All previous violations pertaining to transportation issues were found corrected and are considered CLOSED.

No violations of NRC regulatory requirements were identified in this area.

12.	NOTIFICATIONS AND REPORTS
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Reporting and followup of theft; loss; incidents; overexposures; safety-related equipment failures; change in RSO, authorized user; and radiation exposure reports to individuals.

The inspector interviewed the ARSO and determined that no theft, overexposures, loss or incidents involving licensed materials occurred. The licensee's appointed RSO was properly listed on the license.

No violations of NRC regulatory requirements were identified in this area.

13.	POSTING AND LABELING
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Notices; license documents; regulations; bulletins and generic information; area postings; and labeling of containers of licensed material.

The inspector observed the facility and determined that the license posted required documents. The inspector observed an area where radioactive materials are stored, and found the area properly posted. The inspector interviewed the licensee and determined that the licensee received NRC bulletins and generic information and reviews it if applicable.

No violations of NRC regulatory requirements were identified in this area.

14.	INDEPENDENT AND CONFIRMATORY MEASUREMENTS
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Areas, both restricted and unrestricted, surveyed, and comparison of data with licensee's results and regulations; and instrument type and calibration date.

The inspector performed a survey of the unrestricted area at the licensee's facility and determined that the highest radiation level was 0.2 mR/hr. This measurement was taken on the outside of the storage area with the gauge present. Based on the design of the storage building and its location, and licensee operations, the only restricted area is the storage area. The inspector used a Ludlum Model 2401-P Serial No. 145164, NRC Tag No. 067665, calibrated 03/17/2000.

No violations of NRC regulatory requirements were identified in this area.

15. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES

State requirement and how and when licensee violated the requirement. For NCVs, indicate why the violation was not cited. Attach copies of all licensee documents needed to support violations.

None identified, Clear NRC Form 591 issued.

16. PERSONNEL CONTACTED

Identify licensee personnel contacted during the inspection (including those individuals contacted by telephone).

Use # to indicate individual present at entrance meeting.

Use * to indicate individual present at exit meeting.

Name	Title	Phone No.	In Person or By phone
Paul Clabo	Material Tech	865.453.7123	In Person
Laurin Laneman	Materials Engineer	703.404.6268	By Phone

17. PERFORMANCE EVALUATION FACTORS (PEFs)

	A.	Lack of senior management involvement with the radiation safety program and/or RSO oversight	Y		N	X
	B.	RSO too busy with other assignments	Y		N	X
	C.	Insufficient staffing	Y		N	X
	D.	Radiation Safety Committee fails to meet or functions inadequately	N/A	X	Y	N
	E.	Inadequate consulting services or inadequate audits conducted	N/A	X	Y	N

REMARKS: (Consider the above assessment and/or other pertinent PEFs with regard to the licensee's oversight of the radiation safety program.)

Good support of the program, good performed, however, operations maintained at a very limited scope.

18.	SPECIAL CONDITIONS OR ISSUES
Special license conditions; year-2000 effects of computer software and embedded systems.	
None.	

PART III - POST- INSPECTION ACTIVITIES	
1.	REGIONAL FOLLOWUP ON PEFs
None Required	
2.	DEBRIEF WITH REGIONAL STAFF
Post-inspection communication with supervisor, regional licensing staff, Agreement State Officer; and/or State Liaison Officer.	
Routine Branch Chief Briefing	

3.	YEAR-2000 ISSUES
Convey, to the NMSS Year-2000 Coordinator, all year-2000 licensee-identified problems and corrective actions taken.	
None.	

TO ADVANCE TO NEXT SECTION - PUSH **PAGE DOWN** KEY

**APPENDIX A - ATTACHMENT A
DECOMMISSIONING TIMELINESS INSPECTION**

Licensee:	US DOT, FHA, EFLHD	Date of Inspection:	11/2/2000
1.	COMPLIANCE WITH DECOMMISSIONING TIMELINESS RULE		
NOTE: Repeat the answers given in Section 12 of the main body of the inspection record. The issues in subsequent sections are dependent on the answers to these questions.			
D.	License to conduct a <i>principal activity</i> <u>has</u> expired or been revoked:	Y	N X
B.	Licensee <u>has</u> made a decision to permanently cease <i>principal activities</i> , at the entire site, or at any separate buildings, or at any outdoor areas, including inactive burial grounds.	Y	N X
C.	A 24-month duration has passed in which no <i>principal activities</i> have been conducted under the license at the site, or at any separate buildings, or any outdoor areas, including inactive burial grounds.	Y	N X
D.	If "Yes" to either A or B or C above:		
(1)	Identify Site/Bldg./Area:		
(2)	Date of occurrence of A, B, or C:		
2.	NOTIFICATION REQUIREMENTS		
A.	Licensee has provided written notification to the U.S. Nuclear Regulatory Commission (NRC) within 60 days of the occurrence of 1.A., 1.B., or 1.C., above.	Y	N
	If "Yes," date of notification:		
B.	If the licensee is requesting to delay initiation of the decommissioning process, the licensee <u>has</u> provided written notification to NRC within 30 days of occurrence of 1.A., 1.B., or 1.C. above.	N/A	Y N
	If "Yes," date of notification:		
Basis for Findings:			
3.	DECOMMISSIONING PLAN/SCHEDULE REQUIREMENTS		
A.	Licensee is required to submit a decommissioning plan per 10 CFR 30.36(g); 10 CFR 40.42(g); 10 CFR 70.38(g); or 10 CFR Part 72?	Y	N
	If "No" to 3.A., answer the following items B. - F.		

3.	DECOMMISSIONING PLAN/SCHEDULE REQUIREMENTS							
B.	The decommissioning work scope is covered by current license conditions.	Y			N			
C.	Decommissioning has been initiated within 60 days of notification to NRC, or NRC has granted a delay.	Y			N			
D.	If licensee has initiated decommissioning, give date the decommissioning was initiated:							
E.	If decommissioning has been completed, it was completed within 24 months of notification to NRC.	N/A		Y		N		
F.	If decommissioning is still scheduled to be completed, it is on schedule to be completed within 24 months of notification to NRC.	N/A		Y		N		
Basis for Findings:								
	If "Yes" to 3.A., answer the following items G. - J.							
G.	The decommissioning plan has been submitted to NRC within 12 months of notification.	Y			N			
	If "Yes," date of submittal:							
	If NRC approved, date of NRC approval:							
H.	Has the licensee submitted an alternative schedule request?	Y			N			
	If "Yes," date of submittal:							
I.	If decommissioning has been completed, it was completed within 24 months after approval of the decommissioning plan.	N/A		Y		N		
J.	If decommissioning is still scheduled to be completed, it is on schedule to be completed within 24 months after approval of the decommissioning plan.	N/A		Y		N		
Basis for Findings:								
Violations identified, if any:								

END