ᏩᎳᎩ ᎠᏰᎵ
CHEROKEE NATION®
P.O. Box 948 • Tahlequah, OK 74465-0948
918-453-5000 • www.cherokee.org

Office of the Chief

Chuck Hoskin Jr.
Principal Chief

Bryan Warner
Deputy Principal Chief

Friday, August 5, 2022

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Reply to a Notice of Violation; 030-33920/2022-001

Dear Sir:

During a NRC inspection that began on April 18, 2022, three violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations and corrective steps are listed below:

A. 10 CFR 71.5(a) requires each licensee who transports licensed material outside the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the DOT regulations in 49 CFR parts 107, 171 through 180, and 390 through 397, appropriate to the mode of transport.

   49 CFR Part 172. 49 CFR 172.704(c)(2) requires, in part, that a hazmat employee must receive the training required by this subpart at least once every three years.

   Contrary to the above, from July 22, 2014 to April 18, 2022, the licensee failed to provide hazmat training to hazmat employees at least once every three years. Specifically, the hazmat employees received hazmat training on July 21, 2011, and had not received any further hazmat training, a period exceeding three years. Hazmat employees transported portable gauges containing licensed material on several occasions from at least February 1, 2022, through March 18, 2022, a period which exceeded three years from the last hazmat training received.

   The corrective steps that have been taken and the results achieved are as follows:

   On May 17, 2022, Mr. David Patton and Mr. Ramon Rollice both completed and passed their 49 CFR Part 172. 49 CFR 172.704(c)(2). Completing and passing the required federal regulations were the corrective steps taken to be in compliance with the license agreement and certificates are on file.

B. 10 CFR 20.1101(c) states, that the licensee shall periodically (at least annually) review the radiation protection program content and implementation.

Contrary to the above, from March 23, 2017 to April 18, 2022, the licensee failed to periodically (at least annually) review the radiation protection program content and implementation.

The corrective steps that have been taken and the results achieved are as follows:

On May 17, 2022, I (Michael Conner, CNDOT RSO) performed an annual audit at our facility regarding the Radiation Protection Program content and implementation, as mentioned in 10 CFR 20.1101(c). All audit infractions that were cited in the NRC audit, as well as future possible issues, have been addressed and corrected to stay in compliance with our license and this audit is on file.

C. License Condition 17 of NRC License 35-27525-01 requires that each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport or storage, or when not under the direct surveillance of an authorized user.

Contrary to the above, on April 18, 2022, the licensee failed to have on each portable nuclear gauge, a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position when in storage. Specifically, the licensee had six portable gauges, two Troxler Model 3400 and four CPN International, Inc Model MC Series in storage and all six portable gauges failed to have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position.

The corrective steps that have been taken and the results achieved are as follows:

On April 19, 2022, locks were placed on all nuclear gauges to bring us into compliance with License Condition 17 of NRC License 35-27525-01 and pictures and verification are on file.

Should you have any questions regarding this reply, please do not hesitate to reach out to me.

Best Regards,

Mr. Michael Conner, Radiation Safety Officer
Cherokee Nation
Road Program
P.O. Box 948
Tahlequah, OK 74465

cc:
Director, Division of Radiological Safety and Security
U.S. Nuclear Regulatory Commission Region IV
1600 E. Lamar Blvd., Arlington, Texas 76011
Lizette.Roldan-Otero@nrc.gov

Certificate ID: 55C08F8C3B011ECB

Hazmat Certification

as required by U.S DOT and IATA

This certifies that

David Patton

has been trained and tested in accordance with the U.S. Department of Transportation and International Air Transport Association (IATA) hazardous material requirements for general awareness/familiarization, function-specific, safety and security awareness training as related to the transportation of nuclear gauges. A description of the training course materials is available from Troxler Electronic Laboratories, Inc.

Date **May 17, 2022** Expires **May 16, 2025**

EMPLOYER CERTIFICATION

I certify that the hazmat employee identified on this certificate has been trained and tested as required by U.S. DOT Hazardous Material Regulations (49 CFR 172 Subpart H).

Signature _____ Title Roads Material Tech IV Date 5/17/2022

TROXLER®
The Leader in Construction Testing Equipment

Troxler Electronic Laboratories, Inc.
P.O.BOX 12057 - 3008 E. Cornwallis Road - Research Triangle Park, NC 27709
Phone:(919) 549-8661 - Fax: (919) 549-0761 - www.troxlerlabs.com

Certificate ID: C9E4E5C479D911B3

Hazmat Certification

as required by U.S DOT and IATA

This certifies that

Ramon Rollice

has been trained and tested in accordance with the U.S. Department of Transportation and International Air Transport Association (IATA) hazardous material requirements for general awareness/familiarization, function-specific, safety and security awareness training as related to the transportation of nuclear gauges. A description of the training course materials is available from Troxler Electronic Laboratories, Inc.

Date **May 17, 2022** Expires **May 16, 2025**

EMPLOYER CERTIFICATION

I certify that the hazmat employee identified on this certificate has been trained and tested as required by U.S. DOT Hazardous Material Regulations (49 CFR 172 Subpart H).

Signature Ramon L. Rollice Title Roads Material Tech. Date 5/17/22

TROXLER®
The Leader in Construction Testing Equipment

Troxler Electronic Laboratories, Inc.
P.O.BOX 12057 - 3008 E. Cornwallis Road - Research Triangle Park, NC 27709
Phone:(919) 549-8661 - Fax: (919) 549-0761 - www.troxlerlabs.com

Portable Gauge Audit Checklist

Note: All areas indicated in audit notes may not be applicable to every license and may not need to be addressed during each audit. For example, licensees do not need to address areas that do not apply to their activities, and activities that have not occurred since the last audit need not be reviewed during the next audit.

Licensee's name Cherokee Nation License No. 35-27525-01

Date of This Audit 5/17/22 Date of Last Audit 3/23/17

Audit Date Range Annual

Auditor Signature	Michael Conner RSO Auditor Printed Name	5/17/22 Date
Management Signature	Management Printed Name	Date

1. AUDIT HISTORY

a. Were previous audits conducted periodically (at least annually)? (10 CFR 20.1101) NO

b. Were records of previous audits maintained? (10 CFR 20.2102) NO

c. Were any deficiencies identified during the last two audits or 2 years, whichever is longer? YES

d. Were corrective actions taken? (Look for repeated deficiencies) YES

2. ORGANIZATION AND SCOPE OF PROGRAM

a. If the mailing address or places of use and/or storage changed, was the license amended? [License Condition (L/C)]

b. If ownership changed or bankruptcy was filed, did the licensee obtain prior U.S. Nuclear Regulatory Commission (NRC) consent or notify the NRC? [10 CFR 30.34(b)]

c. If the licensee changed the radiation safety officer (RSO), was the license amended? (L/C)

d. Sealed Sources and Devices

1. Does the license authorize all of the NRC-regulated radionuclides contained in the gauges possessed? (L/C) YES

2. Are the gauges as described in the Sealed Source and Device (SSD) registration certificate? (L/C) YES

3. Are copies of (or access to) SSD registration certificates available? YES

4. Are manufacturer's manuals for operation and maintenance available? (10 CFR 32.210) YES

5. Are the actual uses of gauges consistent with the authorized uses listed on the license? (L/C) YES

6. Are the locations of use of the gauges compatible with the "Conditions of Normal Use" and "Limitations and/or Other Considerations of Use" on the SSD registration certificates? (L/C) YES

e. Is the current inventory of material below the possession limits listed on the license? (L/C) YES

3. TRAINING AND INSTRUCTIONS TO WORKERS

a. Were all workers who are likely to exceed 1 mSv [100 mrem] in a year instructed per 10 CFR 19.12? Was refresher training provided, as needed? Were records maintained? NO

b. Is each gauge operator trained in accordance with license requirements? (L/C) NO

c. Are training records maintained for each gauge operator? YES

d. Did interviews with operators reveal that they know the operating, emergency and security procedures? YES

e. Did this audit[1] include observation of operators using the gauge in a field situation? Operating the gauge? Performing routine cleaning and lubrication? Transporting the gauge? Storing the gauge? Was the use of the gauge in accordance with regulations? YES

f. Did the operator demonstrate safe handling and security during transportation, use, and storage? YES

g. Was U.S. Department of Transportation (DOT) hazardous material (HAZMAT) training (required at least once every 3 years) provided as required? (49 CFR 172.700, 49 CFR 172.701, 49 CFR 172.702, 49 CFR 172.704) NO

4. RADIATION SURVEY INSTRUMENTS

a. If the licensee possesses its own survey meter, does the survey meter meet NRC requirements? [10 CFR 20.1501(c)] NO

b. Are calibration records maintained, if applicable? [10 CFR 20.2103(a)] YES

c. If the licensee does not possess a survey meter, are specific plans made to have one available in the event of an emergency? YES

[1]The auditor should consider performing a performance-based review consisting of field observations and tours.

5. GAUGE INVENTORY

a. Is a record kept showing the receipt of each gauge? [10 CFR 30.51(a)(1)] YES

b. Are all gauges physically inventoried every 6 months or at other intervals approved by the NRC? (L/C) YES

c. Are records of inventory with appropriate information maintained? (L/C) YES

6. PERSONNEL RADIATION PROTECTION

a. Are considerations for keeping doses as low as is reasonably achievable (ALARA) incorporated into the radiation protection program? [10 CFR 20.1101(b)] YES

b. Were prospective evaluations performed showing that unmonitored individuals receive less than the limits in 10 CFR 20.1502(a)? Did these evaluations consider doses to minors [10 CFR 20.1502(a)(2)] and declared pregnant women [10 CFR 20.1502(a)(3)]?

c. Did unmonitored individuals' activities change during the year in a way that could put them over the limits in 10 CFR 20.1502(a)? If yes, was a new evaluation performed?

d. If external dosimetry is required [i.e., when individuals are likely to receive greater than the limits in 10 CFR 20.1502(a)], is dosimetry provided to these individuals? If yes, address the following: YES

1. Is the dosimetry supplier approved by the National Voluntary Laboratory Accreditation Program? [10 CFR 20.1501(c)] YES
2. Are the dosimeters exchanged at the appropriate frequency? YES
3. Are dosimetry reports reviewed and signed by the RSO when they are received? YES
4. Are the records based on NRC forms or the equivalent? [10 CFR 20.2104(d), 10 CFR 20.2106(c)] YES

   - Is NRC Form 4, "Cumulative Occupational Exposure History," completed?
   - Is NRC Form 5, "Occupational Dose Record for a Monitoring Period," completed?

e. Are there any declared pregnant workers? NO

1. If a worker declared her pregnancy, did the licensee comply with 10 CFR 20.1208, "Dose equivalent to an embryo/fetus"?
2. Were records kept of embryo/fetus dose per 10 CFR 20.2106(e)?

f. Are records of exposures, surveys, monitoring, and evaluations maintained? (10 CFR 20.2102, 10 CFR 20.2103, 10 CFR 20.2106) YES

7. PUBLIC DOSE

a. Are gauges stored in a manner to keep doses to members of the public below 1 millisievert (mSv) (100 mrem) in a year? [10 CFR 20.1301(a)(1)] YES

b. Has a survey or evaluation been performed per 10 CFR 20.1501(a)? Have there been any additions or changes to the storage, security, or use of the surrounding areas that would necessitate a new survey or evaluation? NO

c. Do unrestricted area radiation levels exceed 0.02 mSv (2 mrem) in any one hour? [10 CFR 20.1301(a)(2)] NO

d. Are gauges being stored in a manner that would prevent unauthorized use or removal? (10 CFR 20.1801) YES

e. Are records of surveys maintained? (10 CFR 20.2103, 10 CFR 20.2107)

8. OPERATING, EMERGENCY, AND SECURITY PROCEDURES

Note: An ideal way to assess the adequacy and adherence to operating procedures is by observing work in progress.

a. Have operating, emergency, and security procedures been developed and updated to incorporate any new elements, practices, or requirements? YES

b. Does each operator have current copies of the operating, emergency, and security procedures, including current emergency telephone numbers? YES

c. Did any emergencies occur? NO

   1. If so, were they handled properly?

   2. Were appropriate corrective actions taken?

d. Were gauges properly controlled or secured during use or storage? (10 CFR 20.1801, 10 CFR 20.1802) Are the gauges in storage being secured with two independent physical controls? [10 CFR 30.34(i)] YES

9. LEAK TESTS

a. Were sealed source leak tests performed every 6 months or at other authorized intervals? (L/C) YES

b. Were leak tests performed in accordance with license requirements? (L/C) YES

c. Are records of leak test results retained with all of the required information included? (L/C) YES

d. Were any sources found to be leaking, and if yes, was the NRC notified? (L/C) NO

10. MAINTENANCE OF GAUGES

a. Are manufacturer's procedures followed for routine cleaning and lubrication of the gauge? YES

b. Does the source rod remain attached to the gauge during cleaning? (L/C) YES

c. Is nonroutine maintenance performed where the source or source rod is detached from the gauge? If yes, was it performed according to license requirements (e.g., extent of work, individuals performing the work, procedures, dosimetry, survey instrument, compliance with limits under 10 CFR 20.1301, "Dose limits for individual members of the public")? NO

d. Are labels, signs, and postings identifying gauges containing radioactive material, radiation areas and warnings clean and legible? YES

11. TRANSPORTATION

a. Were U.S. Department of Transportation (DOT)-7A or other authorized packages used? [49 CFR 173.415, 49 CFR 173.416(b)] YES

b. Are Type A package, engineering drawings, and performance test records on file? [49 CFR 171.2 (a, b, e), 49 CFR 173.415(a)] YES

c. For any special form source, is the International Atomic Energy Agency Certificate of Competent Authority or other safety analysis documentation maintained on file? [49 CFR 173.476(a)] YES

d. Were packages properly labeled? (49 CFR 172.400, 49 CFR 172.403, 49 CFR 172.406, 49 CFR 172.407) YES

e. Were packages properly marked? (49 CFR 172.301, 49 CFR 172.304, 49 CFR 172.310, 49 CFR 172.324) YES

f. Were packages closed and sealed (e.g., locked) during transport? [49 CFR 173.475(f)] YES

g. Were shipping papers prepared and used? [49 CFR 172.200(a)] YES

h. Did the shipping papers contain proper entries {e.g., proper shipping name, hazard class, identification number [United Nations (UN)] number, total quantity, package type, nuclide, reportable quantity (RQ)(if applicable), physical and chemical form, activity (International System of Units required), category of label, Transportation Index (TI), shipper's name, certification and signature, emergency response phone number, and cargo aircraft only (if applicable)}? (49 CFR 172.200, 49 CFR 172.201, 49 CFR 172.202, 49 CFR 172.203, 49 CFR 172.204, 49 CFR 172.604) YES

i. Were the shipping papers within the driver's reach and readily accessible during transport? [49 CFR 177. 817(e)] YES

j. Were packages secured against movement? (49 CFR 177.834) YES

k. Were placards on the vehicle, if needed? (49 CFR 172.504)

l. Were overpacks, if needed, used properly? (49 CFR 173.25)

m. Were any incidents reported to the DOT? (49 CFR 171.15, 49 CFR 171.16)

12. AUDITOR'S INDEPENDENT SURVEY MEASUREMENTS (IF MADE)

Describe the type, location, and results of the measurements. Does any radiation level exceed regulatory limits? [10 CFR 20.1501(a), 10 CFR 20.1502(a)]

13. NOTIFICATION AND REPORTS

a. Did any reportable incidents occur? Were the appropriate notifications made to the NRC Emergency Operations Center (301-816-5100)? Examples of incidents with notification requirements are as follows: YES

1. Lost or stolen radioactive material (10 CFR 20.2201)

2. Overexposures or high radiation levels (10 CFR 20.2202)

3. Gauge is disabled or fails to function as designed [10 CFR 30.50(b)(2)]

4. Generic equipment issues identified by the licensee (10 CFR 21.21)

b. Were the required written reports made as followups to the events?

14. POSTING AND LABELING

a. Is NRC Form 3, "Notice to Employees," posted? (10 CFR 19.11) YES

b. Are NRC regulations and license documents posted, or is a notice posted stating where these documents are located? (10 CFR 19.11, 10 CFR 21.6) YES

c. Are any other posting and labeling requirements met? (10 CFR 20.1902, 10 CFR 20.1904) YES

15. DECOMMISSIONING

a. Were any locations of use or separate buildings decommissioned since the last audit? Were appropriate notifications made or license amendments requested? (10 CFR 30.36)

b. Are records kept of information important to decommissioning? [10 CFR 30.35(g)]

c. Do records include all information outlined in 10 CFR 30.35(g)?

16. GENERIC COMMUNICATIONS AND NEWSLETTER

a. Are NRC Regulatory Issue Summaries, NRC Information Notices, and Office of Nuclear Material Safety and Safeguards quarterly newsletters received? YES

b. Is appropriate training and action taken in response to these? YES

17. SPECIAL LICENSE CONDITIONS OR ISSUES

Did the auditor review special license conditions or other issues (e.g., nonroutine maintenance)? (L/C) YES

18. EVALUATION OF OTHER FACTORS

a. Is senior licensee management appropriately involved with the radiation protection program and/or RSO oversight? YES

b. Does the RSO have sufficient time to perform his or her radiation safety duties? YES

c. Does the licensee have sufficient staff to support the radiation protection program? YES

19. DEFICIENCIES IDENTIFIED IN AUDIT AND CORRECTIVE ACTIONS

a. Summarize problems and/or deficiencies identified during the audit.

b. If problems and/or deficiencies were identified in this audit, describe the corrective actions planned or taken. Are corrective actions planned or taken at *all* licensed locations (not just the location audited)? Include date(s) when corrective actions are implemented.

c. Provide any other recommendations for improvement.

d. Describe communication with management about deficiencies.