

PART I - LICENSE, INSPECTION, INCIDENT/EVENT AND ENFORCEMENT HISTORY

1. AMENDMENTS AND PROGRAM CHANGES SINCE LAST INSPECTION:

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
10	2/21/2014	Name change.
11	5/12/2015	Name change.
12	1/10/2018	Change of RSO.
13	8/31/2018	Added location of use in Ann Arbor, MI.
14	5/20/2019	Removed location of use in Lansing, MI.

The current NRC license has an expiration date of September 30, 2019. The licensee submitted a renewal application on July 10, 2019 and received a Deemed Timely Letter on July 16, 2019.

2. INSPECTION AND ENFORCEMENT HISTORY:

The last inspection of this licensee was a special inspection conducted on February 27, 2018. One minor violation was noted concerning the licensee's failure to have the individual named as RSO on Amendment No. 11 to NRC License No. 34-26553-02 fulfill the duties and responsibilities of RSO. The violation was considered of minor significance because the licensee immediately appointed a qualified individual as RSO upon the previous RSO's departure and did not use licensed material until the newly appointed RSO was approved by the NRC.

The previous routine inspection of this licensee was on January 16, 2014. No violations of NRC requirements were identified.

3. INCIDENT/EVENT HISTORY:

No open items or events since the last routine inspection.

PART II - INSPECTION DOCUMENTATION

1. ORGANIZATION AND SCOPE OF PROGRAM:

Barr Engineering, Inc. is a civil and architectural engineering company authorized to use portable nuclear gauges for measuring the physical properties of materials. At the time of the inspection, the licensee possessed two Troxler Model 3400 Series portable gauges at its location in Ann Arbor, Michigan and employed one authorized user. The gauges were rarely used out of this location. Licensee staff stated that they plan to acquire more projects in the future for which the portable gauges will need to be used.

2. SCOPE OF INSPECTION:

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: All

The gauges were not in use at the time of the inspection. The inspector toured the licensee's location in Ann Arbor to evaluate the licensee's measures for material security, hazard communication, and exposure control.

Through interviews with the qualified gauge user, the inspector found that the licensee's staff was knowledgeable and conscientious of radiation protection principles and licensee procedures for use, storage, and transportation of portable gauges. The inspector also witnessed the gauge user demonstrate the security of the portable gauges while in transit to and from temporary job sites and noted that two independent controls were used to form tangible barriers. The inspector performed independent surveys of the licensee's facility and found no readings that indicate exposures in excess regulatory limits.

The inspector reviewed a selection of licensee records for inventories, leak tests, use logs, dosimetry, training certifications, and shipping papers with no issues noted. The inspector also reviewed the licensee's training materials and shipping papers.

3. VIOLATIONS, NCVs, AND OTHER REGULATORY ISSUES:

No violations were identified during this inspection. However, during a review of the licensing actions completed since the last inspection, the inspector identified that licensed activities were being conducted out of a facility at 5769 Park Plaza Court, Indianapolis, Indiana. This concern was identified upon review of a license amendment request was received by the NRC on March 16, 2015, which stated that seven portable gauges had been located at the facility in Indianapolis. This was a concern to the NRC because this facility was not authorized on the license at the time the amendment request was received. Title 10 of the *Code of Federal Regulations* (CFR) 30.34(c) requires, in part, that the licensee confine its possession and use of byproduct material to the locations and purposes authorized on the license.

Discussions with licensee personnel indicated that the gauges were likely located at Indianapolis facility on a temporary basis for local projects; however, the exact details of the nature and length of the work conducted out of the location could not be ascertained due to the time that has passed and the licensee personnel turnover since any potential violation may have occurred. The NRC considers this matter to be of very low safety significance because: 1) the licensee was authorized to use licensed material at temporary job sites anywhere in the United States within NRC jurisdiction; (2) negative tests for leakage were submitted to the NRC for all seven gauges verifying that the facility was releasable when the gauges were transferred; and (3) the licensee no longer possessed licensed material at the location of concern as of February 6, 2015. As such, the NRC has suspended its review of the matter because it could not reach a conclusion following a reasonable period of review commensurate with the very low safety significance of any potential violation. This matter may be reviewed again in the future if the NRC receives new information regarding this matter.

To help prevent similar matters arising in the future, the inspector discussed this matter and the NRC's requirements and guidance for permanent field locations and long-term temporary job sites with the licensee's Radiation Safety Officer (RSO) during the exit meeting. The RSO acknowledged the information presented and committed to contacting the NRC for approval in the event that the licensee decides to permanently store licensed material in a new location within NRC jurisdiction in the future.

5. PERSONNEL CONTACTED:

- Joe Cary, Gauge User
- # Loren Rosenbeck, RSO
- # Attended exit meeting on September 30, 2019.

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