

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

<p>1. LICENSEE/LOCATION INSPECTED:</p> <p>Buzzi Unicem USA 1000 River Cement Rd. P.O. Box 1003 Festus, MO 63028</p> <p>REPORT NUMBER(S) 202101</p>	<p>2. NRC/REGIONAL OFFICE</p> <p>Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352</p>	
<p>3. DOCKET NUMBER(S)</p> <p>030-37781</p>	<p>4. LICENSE NUMBER(S)</p> <p>24-32703-01</p>	<p>5. DATE(S) OF INSPECTION</p> <p>June 2, 2021 to July 2, 2021</p>

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. Previous violation(s) closed.
- 3. 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, to exercise discretion, were satisfied.

_____ Non-cited violation(s) were discussed involving the following requirement(s):

- 4. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited in accordance with NRC Enforcement Policy. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

(Violations and Corrective Actions)

Contrary to condition 13.A of NRC Material License 24-32703-01, from July 25, 2017, to July 2, 2021, the licensee failed to test sealed sources for leakage at intervals not to exceed 36 months, as specified in the certificate of registration (TN-1031-D-101-B). Specifically, the license did not leak test its 8 Berthold Technologies Model LB 7440F-CR fixed gauges since July 25, 2017, and the sources were not exempted from such testing.

The cause of the violation was licensee misunderstanding of how to perform leak tests. The licensee was under the impression that gauge surface reading surveys were leak tests. As corrective actions, the licensee familiarized its staff with how to perform leak tests and have leak tested all their gauges after the onsite portion of this inspection. The results of the leak tests were received on July 2, 2021, and identified no leakage.

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'S REPRESENTATIVE	Matthew High		15 Jul 21
NRC INSPECTOR	Luis Nieves Folch	Luis A. Nieves Folch <small>Digitally signed by Luis A. Nieves Folch Date: 2021.07.14 11:45:54 -05'00'</small>	
BRANCH CHIEF	Michael Kunowski	Michael A. Kunowski <small>Digitally signed by Michael A. Kunowski Date: 2021.07.14 12:31:35 -05'00'</small>	



Materials Inspection Record

1. Licensee Name: Buzzi Unicem USA		2. Docket Number(s): 030-37781		3. License Number(s) 24-32703-01	
4. Report Number(s): 2021001			5. Date(s) of Inspection: June 2, 2021 to July 2, 2021		
6. Inspector(s): Luis Nieves		7. Program Code(s): 03120	8. Priority: 5	9. Inspection Guidance Used: 87124	
10. Licensee Contact Name(s): Matthew High, RSO		11. Licensee E-mail Address: matthew.high@buzziunicemusa.com		12. Licensee Telephone Number(s): 636-931-2502	
13. Inspection Type:		14. Locations Inspected:		15. Next Inspection Date (MM/DD/YYYY):	
<input type="checkbox"/> Initial <input checked="" type="checkbox"/> Routine <input checked="" type="checkbox"/> Announced <input type="checkbox"/> Non-Routine <input type="checkbox"/> Unannounced		<input checked="" type="checkbox"/> Main Office <input type="checkbox"/> Field Office <input type="checkbox"/> Temporary Job Site <input type="checkbox"/> Remote		June 2, 2026 <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Extended <input type="checkbox"/> Reduced <input type="checkbox"/> No change	

16. Scope and Observations:

This was an announced, routine inspection of a cement manufacturing company authorized to possess and use sealed sources for level or density measurements in gauges, as authorized by its license, in Festus, Missouri. The licensee possessed one Thermo Gamma Metrics Model CB Omni and eight Berthold Technologies Model LB 7440F-CR specifically licensed fixed gauges. Records of Inventories, shutter checks, and leak tests were reviewed. The licensee does not perform any installation, maintenance, repair, or removal activities relating to the gauges; the manufacturer is called in for these services.

Performance Observations

The inspector toured the facility and observed the gauges in conjunction with the licensee's current inventory. The inspector evaluated the licensee's measures for materials security, hazard communication, and exposure control. The licensee adequately described proper lock-out procedures. Interviews with licensee staff indicated adequate knowledge of radiation safety procedures and concepts. The inspector performed independent and confirmatory measurements that indicated similar results as the licensee's records. The inspector reviewed audits, shutter checks, inventory, and leak test records.

The inspector identified that contrary to condition 13.A of NRC Material License 24-32703-01, the licensee had not leaked its actively used 8 Berthold gauges since July 25, 2017. These gauges each contain a nominal 500 mCi sealed source of cesium-137. The license condition requires that the leak tests be conducted at the interval in the certificate of registration for the gauges (TN-1031-D-101-B). The certificate specifies that leak tests be conducted at intervals not to exceed 36 months.

The cause of the violation was licensee misunderstanding of how to perform leak tests. The licensee was under the impression that gauge surface exposure reading surveys were leak tests. As corrective actions, the licensee familiarized its staff with how to perform leak tests and have leak tested all of the Berthold gauges after the onsite portion of this inspection. The results of the leak tests were received on July 2, 2021, and identified no leakage. The required leak tests of the Thermo Gamma Metrics gauge, containing up to 6 sealed sources of californium-252 with a total nominal activity of 45 mCi, were conducted by the gauge manufacturer and at the proper frequency.

One violation was identified during this inspection, concerning failure to conduct leak tests at the required frequency, as documented on the 591 Part 1 of this form.

From: [Nieves Folch, Luis](#)
To: [High, Matthew](#)
Subject: NRC 591 Inspection Report with a Severity Level IV Violation Buzzi Unicem USA
Date: Thursday, July 15, 2021 7:34:00 AM
Attachments: [Buzzi SL Violation 591\(3\)MeditSigned.pdf](#)

Dear Mr. High

Attach is the 591 report for the inspection conducted on June 2, 2021. You are required to sign the 591 form at the bottom where it says "Licensee's Representative" and send it back to me. After that there is no further actions on your part. This violation will remain open until your next routine inspection when another inspector can review your corrective actions.

In accordance with Title 10 of the Code of Federal Regulations 2.390 of the NRC's "Rules of Practice," a copy of this message will be available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's website at <http://www.nrc.gov/reading-rm/adams.html>. Please feel free to contact me if you have any questions regarding this correspondence.

Thank you,

Luis Nieves
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Division of Nuclear Materials Safety
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