



Materials Inspection Report

1. Licensee/Location Inspected:

NLMK Indiana
6500 South Boundary Road
Portage, IN 46368

Report Number(s) 2023-001

2. NRC/Regional Office

Region III
U. S. Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

3. Docket Number(s)

030-37307

4. License Number(s)

13-32628-01

5. Date(s) of Inspection

01/23/23; exit 03/20/23

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. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements, and were assessed at Severity Level IV, in accordance with the NRC Enforcement Policy.
- A. 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, corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy were satisfied.
(Non-cited violation(s) was/were discussed involving the following requirement(s))

- B. The following violation(s) is/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 17 of NRC License No. 13.32628-01, between November 22, 2019, and January 23, 2023, NLMK Indiana routinely removed from service, installed, and performed initial radiation surveys of a Berthold LB 300 ML source holder containing cobalt-60 when changing caster molds every two to three months. As corrective action for this Severity Level IV violation, on February 10, 2023, the licensee submitted a request with supporting documentation to revise Condition 17 to permit these activities.

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 AND DATE |
|---------------------------|-----------------|---|
| LICENSEE'S REPRESENTATIVE | Jeffrey M. Best |  4.3.2023 |
| NRC INSPECTOR | Ryan Craffey |  Digitally signed by Ryan J. Craffey Date: 2023.03.20 09:57:33 -04'00' |
| BRANCH CHIEF | Rhex Edwards |  Digitally signed by Rhex A. Edwards Date: 2023.03.29 07:51:05 -05'00' |

Add Continuation Page



Materials Inspection Record

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|--|--|--|--|---|--|
| 1. Licensee Name: NLMK Indiana | | 2. Docket Number(s): 030-37307 | | 3. License Number(s) 13-32628-01 | |
| 4. Report Number(s): 2023-001 | | | 5. Date(s) of Inspection: January 23, 2023; exit March 20, 2023 | | |
| 6. Inspector(s): Ryan Craffey | | 7. Program Code(s): 03120 | | 8. Priority: 5 | 9. Inspection Guidance Used: IP 87124 |
| 10. Licensee Contact Name(s): Jeff Best - RSO | | 11. Licensee E-mail Address: jbest@us.nlmk.com | | 12. Licensee Telephone Number(s): 219-787-8200 x5403 | |
| 13. Inspection Type: <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Announced <input type="checkbox"/> Non-Routine <input checked="" type="checkbox"/> Unannounced | | 14. Locations Inspected: <input type="checkbox"/> Hybrid <input checked="" type="checkbox"/> Main Office <input type="checkbox"/> Temporary Job Site <input type="checkbox"/> Field Office <input type="checkbox"/> Remote | | 15. Next Inspection Date (MM/DD/YYYY): 01/23/2028 <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Extended <input type="checkbox"/> Reduced <input type="checkbox"/> No change | |
| 16. Location(s) Inspected List: 6500 South Boundary Road, Portage, IN | | | | | |
| 17. Scope and Observations: <p>NLMK Indiana, a steel manufacturer, was authorized to use Berthold LB 300 ML series holders containing cobalt-60 sources for mold level indication on a single strand caster at its facility in Portage, Indiana. At the time of the inspection, the licensee had two LB 300 ML source holders (one in use and one spare), as well as three disused LB 300 IRL ML Type II source holders in secure storage awaiting disposal.</p> <p>The inspector toured the facility in Portage. All areas were adequately posted, and all licensed material was adequately secured. Independent radiation surveys in the vicinity of gauge use and storage areas were below regulatory limits to members of the public, and independent surveys in the vicinity of the gauges were consistent with radiation profiles in the applicable SSDR safety evaluation. All gauges examined were in good condition and adequately labeled. The inspector interviewed the licensee's RSO and authorized users to discuss gauge use including shutter operation, radiation surveys, and emergency response. Involved staff were knowledgeable of radiation protection principles and licensee procedures. The inspector also reviewed a selection of records including radiation safety training and documentation of semiannual service provider visits which included leak test analysis, shutter checks, a physical inventory and area surveys.</p> <p>During discussions of licensed activities and a review of applicable procedures, the inspector learned that the licensee routinely removed its caster mold source holders from service and reinstalled them during mold changes every two to three months. This was considered a SLIV violation of LC 17 for the following reasons: (1) the licensee had existing procedures, training, and radiation survey instrumentation that conformed with written manufacturer instructions for the removal and re-installation of source holders; (2) there was no evidence that the shutter mechanisms of the gauges were (or even could be) open prior to source holder removal; and (3) the activities were relatively short, simple, infrequent, and involved small quantities of licensed material.</p> <p>The root cause of the violation was a misunderstanding of regulatory requirements. The licensee mistakenly believed that the SSDR safety evaluation for these devices permitted the conduct of such activities.</p> | | | | | |


Materials Inspection Record (Continued)

As corrective action, on February 10, 2023, the license submitted a request with supporting documentation addressing all criteria in Appendix J to NUREG-1556 Volume 4, Revision 1 to revise Condition 17 and permit the licensee to perform installation, initial radiation surveys, relocation, and removal from service of its caster mold level gauges.

The licensee was previously cited in IR 03037307/2017001(DNMS) for a SLIV violation of LC 12.A regarding the lack of an approved RSO. The inspector reviewed the licensee's corrective actions, which appeared adequate. Since the last inspection, the licensee submitted one request to name a new RSO, dated March 15, 2022. The proposed RSO was a member of the Safety Department, as the licensee had previously committed. This request was approved in Amendment No. 9 to the license, dated June 6, 2022.

Signature and Date - Branch Chief



 Digitally signed by Rhex A. Edwards
Date: 2023.03.29 07:50:41 -05'00'