

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:

Missouri Analytical Laboratories, Inc.
1820 Delmar Blvd
St. Louis, MO 63103
REPORT NUMBER(S): 11-01

2. NRC/REGIONAL OFFICE

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

3. DOCKET NUMBER(S)

030-05138

4. LICENSEE NUMBER(S)

24-12366-01

5. DATE(S) OF INSPECTION

August 26, 2011

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, NUREG-1600, 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. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11

One Severity Level IV violation was identified as described in Part 2, attached. This item is being cited because it was identified by the NRC Inspector. (continued in Part 2, attached)

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	Ross Larson, RSO	Ross Larson	8/26/11
NRC INSPECTOR	Andrew M. Bramnik	Andrew M. Bramnik	8/26/11
Branch Chief	Tamara E. Bloomer	Tamara E. Bloomer	8/30/11

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(Continued) Condition 17 of

NRC License No. 24-12366-01 states, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the Application dated January 26, 2004.

Item 8 of the Application dated January 26, 2004 states, in part, that "the radiation safety training program is administered by the RSO on an annual basis to all authorized users including the RSO;" and that "The RSO will also observe and comment upon the performance of the licensed activity. A written training record will be maintained and signed by the AU and ~~the~~ RSO."

Contrary to the above, between October 2006 and August 26, 2011, the licensee failed to administer the radiation safety training program on an annual basis. Specifically, no annual training had been administered during this time period.

The root cause of the violation was an oversight by the RSO in not performing or administering the training on an annual basis. The RSO will administer training to all authorized users - including the RSO. by August 31, 2011.

KRP

Docket File Information
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6. INSPECTION PROCEDURES
87126

7. INSPECTION FOCUS AREAS
03.01 – 03.07

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM
3620

2. PRIORITY
5

3. LICENSEE CONTACT
Ross Larson, Director of Quality Assurance

4. TELEPHONE NUMBER
314-241-8772

☒ Main Office Inspection

Next Inspection Date: August 2016

☐ Field Office Inspection

☐ Temporary Job Site Inspection

PROGRAM SCOPE

This was a routine inspection of a laboratory that utilized licensed material to analyze the abrasiveness of toothpaste. The licensee acquired teeth that had been extracted by dental surgeons and irradiated at the University of Missouri to activate stable phosphorus to phosphorus-32 (P-32). The licensee installed the irradiated teeth in a custom device to brush the teeth in toothpaste slurry, and analyzed aliquots of control and experimental slurries for P-32. One authorized user usually performed these experiments Monday through Thursday. All waste was held for decay in storage.

PERFORMANCE OBSERVATIONS

Experimental procedures were not being conducted at the time of the inspection. Interviews and demonstrations by the Radiation Safety Officer (RSO, also the Director of Quality Assurance) revealed an adequate level of understanding of emergency and material handling procedures and techniques. The RSO demonstrated how packages containing licensed material were surveyed and wipe tested upon receipt. Licensed material – including material being held for decay in storage – was adequately secured and not readily accessible to members of the general public.

The RSO described the process used to demonstrate that waste materials were decayed to radiation levels that were indistinguishable from background prior to disposal. The licensee possessed a radiation survey meter that was calibrated, operational, and performed well in side-by-side comparison with an NRC instrument. Independent measurements did not indicate readings in excess of Title 10 of the Code of Federal Regulations (10 CFR) Part 20 limits in restricted or unrestricted areas. Personal whole body dosimetry was worn by the licensee's staff when conducting experiments and records did not indicate doses in excess of 10 CFR Part 20 limits over the past five years.

One violation for failure to conduct required annual radiation safety training was identified, and is described in Part 2, attached.

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