

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED: Mid-America Isotopes, Inc. 706 E Liberty Lane Ashland, MO 65010	2. NRC/REGIONAL OFFICE U.S. Nuclear Regulatory Commission Region III 2443 Warrenville Road Suite 210 Lisle, Illinois 60532-4351
REPORT NUMBER(S) 2008-001	

3. DOCKET NUMBER(S) 030-31896	4. LICENSEE NUMBER(S) 24-26241-01MD	5. DATE(S) OF INSPECTION MAY 21, 2008
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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) was/were discussed involving the following requirement(s) and Corrective Action(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.
(Violations and Corrective Actions)

Licensee's Statement of Corrective Actions for Item 4, above.

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			
NRC INSPECTOR	Sam Mulay		5/21/08

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1. LICENSEE Mid-America Isotopes, Inc. REPORT NUMBER(S) 2008-01		2. NRC/REGIONAL OFFICE Region III 2443 Warrenville Road, Suite 210 Lisle, IL 60532	
3. DOCKET NUMBER(S) 03031896	4. LICENSE NUMBER(S) 24-26241-01MD	5. DATE(S) OF INSPECTION May 21, 2008	
6. INSPECTION PROCEDURES USED 87127		7. INSPECTION FOCUS AREAS 03.01-03.07	

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S) 2500	2. PRIORITY 2	3. LICENSEE CONTACT Scott Brower, R.Ph., RSO	4. TELEPHONE NUMBER 573-657-1776
<input checked="" type="checkbox"/> Main Office Inspection		Next Inspection Date: May 2010	
<input type="checkbox"/> Field Office			
<input type="checkbox"/> Temporary Job Site Inspection			

PROGRAM SCOPE

The licensee provides unit and bulk doses of byproduct material to approximately 25 clients primarily within the States of Missouri and Nebraska. The pharmacy is operational Monday-Friday from 2:30 am-4:00pm daily. All other times are covered on-call.

The licensee receives three Mo99/Tc99^m generators weekly in various quantities as authorized. On average, an authorized pharmacist will perform about 3 iodine-131 encapsulations weekly ranging from 3.0 to 100 millicuries. Encapsulations were not being performed at time of inspection

This radiopharmacy employs 4 pharmacists, 10 pharmacy technicians (including students), and approximately 13 drivers. In addition, the licensee maintains three dose calibrators and two draw stations. One dose calibrator is used exclusively for approximate measurements prior to obtaining final reading at one of the other draw stations.

Performance Observations

The inspector observed a generator elution procedure, unit dose preparation and drawing, performance of surveys and wipes prior to shipment, loading in dedicated transport vehicles, package receipt surveys and wipe tests and personal survey meter "frisk" upon leaving the restricted area with no problems or issues identified. Adequate block/brace procedures were also observed as well as proper shipping paper documentation and accessibility.

Proper usage of personal dosimetry was also observed. The licensee exchanges dosimetry monthly. Maximum readings for 2007 indicated whole-body exposure of 748 mRem and 12,756 mRem extremity. YTD 2008 maximum readings were whole-body 305 mRem and extremity of 3883 mRem. Interviews conducted with available staff indicated an adequate knowledge of material handling and emergency procedures.

Independent measurements conducted indicated maximum readings of 4.0 mr/hr in the generator storage room . draw station floors, benches etc., revealed approximately 0.04 mr/hr. Unrestricted levels did not exceed back ground levels (.02mr/hr). Side by-side comparison of licensee's survey instruments did not indicate significant variances. The licensee's security monitoring system was verified operational during the review and appeared to function as designed.

As a result of the inspection conducted 3/30/06, two findings (VAF No.: 2006-19, dated 5/23/06), involving the inaccurate calculation of iodine-131 unrestricted air concentration limits and, the then, existing computer software program which did not always correctly determine if a client was authorized to receive a specific amount and type of licensed material. These issues were reviewed during this inspection and found to have been corrected.

NMED No.: 070405