



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, ILLINOIS 60532-4352

November 14, 2007

Mr. Jack Coffey  
Senior Vice President  
Quality and Regulatory  
Nuclear Pharmacy Services  
Cardinal Health  
7000 Cardinal Place  
Dublin, OH 43017

**SUBJECT: NRC INSPECTION REPORT 030-36973/07-04 (FORM 591M Part 1)  
SPRINGFIELD, MISSOURI FACILITY**

Dear Mr. Coffey:

This letter refers to the routine inspection conducted on October 17, 2007, at your Springfield, Missouri, facility. The inspection results were discussed with Willie Regits of your staff during a final telephonic exit briefing conducted on November 13, 2007.

This inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, independent measurements, and observation of activities in progress. Within the scope of this inspection no violations of NRC requirements were identified; therefore, no response to this letter or the enclosed NRC Form 591M is required.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

J. Coffey

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Should you have any questions concerning this inspection or the enclosed Form 591M, please contact Ken Lambert of my staff at (630) 829-9633.

Sincerely,



John R. Madera, Chief  
Materials Inspection Branch

Docket No.: 030-36973  
License No.: 34-29200-01MD

Enclosure:  
Inspection Report 030-36973/07-04

cc w/encl: State of Missouri

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**



1. LICENSEE/LOCATION INSPECTED:  
 Cardinal Health, Dublin, Ohio 43017  
 Location inspected: 3040 East Elm Street,  
 Springfield, Missouri 65802  
  
 REPORT                      2007-004

2. NRC/REGIONAL OFFICE  
  
 REGION III  
 US NUCLEAR REGULATORY COMMISSION  
 2443 WARRENVILLE ROAD, SUITE 210  
 LISLE, ILLINOIS 60532

3. DOCKET NUMBER(S)  
 030-36973

4. LICENSEE NUMBER(S)  
 34-29200-01MD

5. DATE(S) OF INSPECTION  
 October 17, 2007

**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.

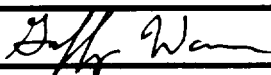
\_\_\_\_\_ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):

- 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	Geoffrey M. Warren		10/24/07

**Docket File Information**  
**SAFETY INSPECTION REPORT**  
**AND COMPLIANCE INSPECTION**



1. LICENSEE <b>Cardinal Health, Springfield, MO</b> REPORT NUMBER(S) 2007-004		2. NRC/REGIONAL OFFICE <b>Region III</b>	
3. DOCKET NUMBER(S) <b>030-36973</b>	4. LICENSE NUMBER(S) <b>34-29200-01MD</b>	5. DATE(S) OF INSPECTION <b>October 17, 2007</b>	
6. INSPECTION PROCEDURES USED <b>87127</b>	7. INSPECTION FOCUS AREAS <b>03.01 - 03.07</b>		

**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM CODE(S) <b>02500</b>	2. PRIORITY <b>2</b>	3. LICENSEE CONTACT <b>Sam Leveritt, Site RSO</b>	4. TELEPHONE NUMBER <b>417-831-5190</b>
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Main Office Inspection      Next Inspection Date: **TBD**

Field Office \_\_\_\_\_

Temporary Job Site \_\_\_\_\_

**PROGRAM SCOPE**

This facility was a nuclear pharmacy located in Springfield, Missouri. Licensee staff consisted of two pharmacists, four technologists, and eleven drivers. The pharmacy manufactured and distributed approximately 230-250 unit doses and bulk technetium vials daily Monday through Friday to 22 regular customers in southwestern Missouri and northern Arkansas. Most of the unit doses were technetium-99m compounds. Licensee operated from around 12:30 AM until 4:30 PM on weekdays, with limited hours on weekends. The first run left at 5:30 AM and the second ran from 7:00 am through around 10:00 am, with additional runs as needed throughout the day. The pharmacy received two molybdenum-99/technetium-99m generators weekly. Licensee compounded iodine capsules and received and redistributed xenon-133 vials. The licensee's corporate office performed independent safety audits on the radiation safety program quarterly, and the licensee had addressed concerns raised by these audits.

**Performance Observations**

During this inspection, the inspector observed generator elution and molybdenum testing, kit preparation and quality assurance, dose preparations, iodine-131 compounding, dose packaging, package surveys, survey meter checks, package transport, shipping paper preparation, package transport, and returned package receipt surveys. Licensee personnel demonstrated dose calibrator constancy checks, waste tracking and disposal, and daily contamination surveys. No issues were identified with these practices. Interviews with licensee staff indicated adequate knowledge of radiation safety procedures and policies. Surveys indicated radiation levels consistent with licensee records and postings.

In addition, the inspector observed a delivery of licensed material from the pharmacy received at St. John's Physicians and Clinics in Springfield, Missouri. The inspector observed the placement of packages and shipping papers in the delivery vehicle and the package labels and markings and noted no concerns.

