NRC FORM 591M PART 1
(10-2011)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
Cardinal Health Nuclear Pharmacy Services 7000 Cardinal Place Dublin, OH 43017 REPORT NUMBER(S) 2011-011	Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
030-36973	34-29200-01MD	November 17, 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 violations(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)

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			
NRC INSPECTOR	Robert P. Hays		11/29/11
BRANCH CHIEF	Tamara E. Bloomer		11/30/11

NRC FORM 591M PART 3
(10-2011)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

Docket File Information

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6. INSPECTION PROCEDURES USED	7. INSPECTION FOCUS AREAS
IP 87125	03.01 - 03.07

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S)	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
2500	2	Dane Dishman, Pharmacy RSO	(417) 831-5190

☐ Main Office Inspection Next Inspection Date: 11/17/2013

☑ Field Office Inspection 3040 E. Elm Street, Springfield, MO

☐ Temporary Job Site Inspection

PROGRAM SCOPE

This nuclear pharmacy staff included 3 pharmacists, 4 pharmacy technician, and 9 drivers. The licensee prepares and distributes an average of 250-275 unit doses/day. In addition to unit doses, the pharmacy distributes xenon-133 gas vials, occasionally therapeutic beta emitters, compounded I-131 capsules as ordered, blood labeling, and F-18.

PERFORMANCE OBSERVATIONS

Interviews with licensee personnel indicated an adequate knowledge of radiation safety concepts and procedures provided through recurring training. The inspector observed unit dose preparation and procedures in progress and the licensee's staff demonstrated/discussed: (1) unit dose prep and safe use procedures; (2) iodine compounding procedures; (3) package returns and breakdown procedures; (4) area and contamination surveys; (5) iodine and xenon package receipt procedures; (6) DOT packaging and transportation procedures; (7) unit dose management system; (8) F-18 procedures; (9) wipe test counting and efficiency procedures; (10) survey instruments and calibrations; (11) postings and labeling; (12) staff training; (13) radiation safety program audits; (14) thyroid bioassays; (15) waste handling; (16) facility security; (17) weekly iodine effluent monitoring (< 20% of constraint limits); (18) any events involving licensed material; and (19) the highest cumulative weekly and monthly dosimetry records indicated:

2010: 135 mrem DDE (whole body); and 15340 mrem SDE (extremity).
2011: 140 mrem DDE (whole body); and 15280 mrem SDE (extremity) through 10/18/2011

The inspector performed independent and confirmatory radiation measurements which indicated results consistent with licensee survey records and postings.

No violations were identified during the inspection.