

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

<p>1. LICENSEE/LOCATION INSPECTED:</p> <p>Cardinal Health Nuclear Pharmacy Services 7000 Cardinal Place Dublin, Ohio 43017</p> <p>REPORT NUMBER(S) 2018006</p>	<p>2. NRC/REGIONAL OFFICE</p> <p>Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352</p>	
<p>3. DOCKET NUMBER(S)</p> <p>030-36973</p>	<p>4. LICENSE NUMBER(S)</p> <p>34-29200-01MD</p>	<p>5. DATE(S) OF INSPECTION</p> <p>July 17-18, 2018</p>

**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:

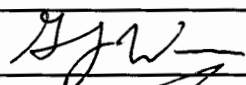
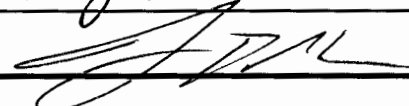
- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed. *From rpts 2016007 and 2017006*
- 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, 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	Geoffrey Warren, Sr. HP		7/18/18
BRANCH CHIEF	Aaron McCraw		8/9/18

**Docket File Information**

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6. INSPECTION PROCEDURES USED  87127	7. INSPECTION FOCUS AREAS  03.01 - 03.07
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**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM CODE(S)  02500	2. PRIORITY  2	3. LICENSEE CONTACT  Glenn Sullivan, Corp. RSO	4. TELEPHONE NUMBER  (614) 757-9586
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Main Office Inspection      Next Inspection Date: July 17, 2020

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

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

**PROGRAM SCOPE**

This was a routine announced inspection at the corporate office of Cardinal Health, a company that operated 120 facilities under its nuclear pharmacy division in the United States. Twenty of these facilities operated under the multi-site NRC license. Each pharmacy prepared and distributed radioactive drugs to clients primarily at medical facilities. Nationally, the pharmacies distributed around one million individual doses monthly. In addition, each facility was authorized to redistribute sealed sources as calibration sources and brachytherapy sources.

Cardinal Health employed 3000 personnel at the corporate office in Dublin, Ohio. Five personnel at the corporate office had primary duties concerning the radiation safety program, and five auditors based around the country performed audits at the individual pharmacies. This inspection was focused on the activities performed by corporate staff in support of radiation safety at the radiopharmacy facilities.

Performance Observations: The inspector attended the licensee's radiation safety committee meeting on July 17, 2018. Licensee personnel described (1) training and qualification of authorized users, nuclear pharmacists, and radiation safety officers; (2) the corporate audit program for radiopharmacy facilities, including rating results, actions taken to correct deficiencies and strengthen programs, and oversight of auditors; (3) initial and annual radiation safety training for pharmacy and corporate staff; (4) dosimetry and bioassay programs, including follow-up to doses exceeding ALARA levels; (5) effluent monitoring and public dose calculations; (6) tracking and verification of client licenses and authorizations; and (7) follow-up to issues identified through the employee concerns program. The inspector noted no concerns with these activities. Interviews with licensee personnel indicated adequate knowledge of radiation safety concepts and procedures. Review of dosimetry records indicated no exposures exceeding regulatory limits.

The licensee had completed corrective actions as described for (1) the violation of 10 CFR 30.41(a) and (b)(5) concerning distribution to an unauthorized recipient cited August 4, 2016 in Inspection Report No. 2016007 and (2) the violation of License Condition No. 25.A. to the NRC license concerning floor plans and layouts of licensed facilities cited February 20, 2018 in Inspection Report No. 2017006. In addition, the violations have not recurred. Based on this, the violations are closed. No violations were identified during this inspection.