

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

1. LICENSEE/LOCATION INSPECTED: National Aeronautics & Space Administration John H. Research Center 21000 Brookpark Road Cleveland, Ohio 44135  REPORT NUMBER(S) 2016-001		2. NRC/REGIONAL OFFICE  Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352	
3. DOCKET NUMBER(S) 030-05626	4. LICENSE NUMBER(S) 34-00507-16	5. DATE(S) OF INSPECTION 02/09/2016	

**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, 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	Peter J. Lee, Ph.D., CHP	<i>Peter J. Lee</i>	2-17-16
BRANCH CHIEF	Michael Kunowski	<i>Michael Kunowski</i>	2-17-16

**Docket File Information**

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6. INSPECTION PROCEDURES USED  87104	7. INSPECTION FOCUS AREAS  3.01-3.02
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**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM CODE(S)  03620	2. PRIORITY  K5	3. LICENSEE CONTACT  Christopher Blasio, CHP, CIH	4. TELEPHONE NUMBER  (216) 433-6520
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Main Office Inspection      Next Inspection Date: \_\_\_\_\_

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

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

**PROGRAM SCOPE**

As of this inspection, the licensee is in the process of sample preparation and analyses for soil immediately adjacent to the Cyclotron Vault walls and roof.

**Performance Observations**

The licensee has been disassembling of beam transport line, instruments and the Dee in the cyclotron. Currently only main body of the cyclotron with magnet yokes remains. The licensee made first disposal of wastes generated from dismantling of the cyclotron at Tennessee's Class I industrial landfills on 9-15-2015. The inspector reviewed the site characterization report for the cyclotron facility, and concluded that most of wastes generated from the dismantling of the cyclotron facility were NON-DOT regulated materials and should meet the Tennessee's Bulk Survey for Release (BSFR) program except those with higher dose rate readings such as Dee and beam stops and those internal components. In the coming summer, the licensee plans to continue dispose of those materials meeting the TN's BSFR program and to perform detailed characterization and dispose of those with higher dose rate reading in a licensed radioactive waste facility.

The inspector reviewed the soil process procedure for core samples collected from outside concrete walls and roof of the cyclotron facility. The inspector reviewed the calibration procedure of the high purity germanium detector and performed the calibration check for the soil sample analyses. The inspector concluded that the licensee properly processed and analyzed the soil samples. Also based on the review of gamma spectrum analyses of soil samples, the inspector determined that no detectable activation products identified in the soil due to previous cyclotron operation. The MDC of the gamma spectrum analyses were well below the default screening values stated in NUREG-1757.

No violations of NRC requirements were identified.