RADIOACTIVE MATERIALS BRANCH
RADIATION PROTECTION SECTION

NONCOMPLIANCE SUMMARY REPORT

1.	**Licensee:**	**2.**	**Inspecting Personnel:**
	Duke University Medical Center		T Cartoski, S Jeffries, C Smith, R Crowe & L Cox
3.	**License Number:**	**4.**	**Date(s) of Inspection:**
	032-0247-1, -A1 & -A2		February 15-17, 2017

CITED ITEM(S) OF NONCOMPLIANCE (Written Response Required):

1. Contrary to 10A NCAC 15 .1646(a)(3) the Licensee failed to report immediately a compromised source which led to a loss of greater than one week of HIGS operations.

2. Contrary to "TUNLRAMSOP U-235-WT", dated September 24, 2013, the Licensee failed to conduct leak tests for any sources listed in this procedure, as dictated.

3. Contrary to 10A NCAC 15 .1003(a) the Licensee failed to provide sufficient training commensurate to the roles and duties of workers as evidenced by the below items:

    - Contrary to Reporting Requirements outlined in Application for License Renewal dated February 3, 2012 and signed by Terry Yoshizumi, Ph.D., RSO and Duke University's, "General Radiation Safety at Accelerators" Procedures, the Licensee failed to immediately report a damaged radioactive source, suspected contamination and unexpected radiation exposure to the Radiation Safety Office.
    - During interviews, it was discovered that even though the source was visually compromised, proper personal protective equipment (i.e. gloves) were not utilized and leak tests were not performed before transferring to additional locations.
    - While licensee personnel were obtaining survey/wipe samples, it was observed that several chances for cross contamination of the samples could take place due to the technique employed (crossing of one hand for samples taken and the other hand for sample collections).
    - While licensee personnel were taking surveys of personal items and surveys of hands and shoes, it was observed that the detector surface was held at an angle, which could allow contaminant particles to contaminate the survey window of the detector, compromising the detector to make accurate survey determinations.
    - During interviews with licensee personnel, it was discovered that the Liquid Scintillation Counter (LSC) being utilized to analyze samples during this inspection had many conditions were not met in order to provide, "reliable" results (temperature cold correction of samples, electro static discharge sensitivity, improper lighting).

4. Contrary to 10A NCAC 15 .1622(b) the Licensee failed to maintain control of a radioactive source that resulted in contamination being discovered in uncontrolled locations.

NOTE: **Provisions of 10A NCAC 15 .1002(a) (4) and (f) require any notice of violation involving radiological working conditions, any order issued pursuant to 10A NCAC 15 .0100, and any response from the licensee to be posted within two working days after receipt of the document from the Agency. The licensee's or registrant's response, if any, shall be posted within two working days after dispatch from the licensee or registrant. Such documents shall remain posted for a minimum of five working days, or until action correcting the violation has been completed, whichever is later.**

RADIOACTIVE MATERIALS BRANCH
RADIATION PROTECTION SECTION

NONCOMPLIANCE SUMMARY REPORT

1.	**Licensee:**	**2.**	**Inspecting Personnel:**
	Duke University Medical Center		T Cartoski, S Jeffries, C Smith, R Crowe & L Cox
3.	**License Number:**	**4.**	**Date(s) of Inspection:**
	032-0247-1, -A1 & -A2		February 15-17, 2017

UNRESOLVED ISSUE(S) (Written Response Required):

1. None



Travis Cartoski, Health Physicist

March 3, 2017

Date