



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

June 28, 2012

Docket No. 030-11063
Control No. 577439

License No. 08-00386-19

Wayne Frederick, Sr., M.D.
Deputy Vice-Provost for Health Sciences
Howard University
6th and Bryant Streets NW
Radiation Safety, Annex II - room 211
Washington, DC 20059

SUBJECT: HOWARD UNIVERSITY, REQUEST FOR ADDITIONAL INFORMATION
CONCERNING APPLICATION FOR AMENDMENT TO LICENSE, CONTROL
NO. 577439

Dear Dr. Frederick:

This is in reference to the letters dated April 26 and June 21, 2012 requesting to amend Nuclear Regulatory Commission License No. 08-00386-19 to release the waste facility at 510 College Street. In order to continue our review, we need the following additional information:

1. All three waste facility diagrams provided (the "Summary" page, the contamination survey page, and the radiation survey page) show the shorter dimension (from the door to the back wall) to be 24 feet 6 inches, and the longer dimension (from side wall to side wall) to be 19 feet. In addition, the three diagrams are different sizes and shapes, although all are rectangular and show the door in the middle of the front wall. Because the diagrams provided appear to be incorrect and are inconsistent, this information cannot be accepted as is. State if the dimensions shown on your diagram of the waste facility at 510 College Street are labeled correctly but the diagram is drawn incorrectly and not to scale; or if the dimensions shown on your diagram of the facility are labeled incorrectly and the diagram is not drawn to scale. Alternately, provide corrected diagrams.
2. The "dose rate and count rate survey" results are not adequate to meet the NRC requirement to demonstrate that the total residual contamination levels do not exceed NRC release criteria, and are not adequate to meet the NRC requirements for scanning surveys.
 - a. Static measurements should be performed as described in NUREG-1575, Revision 1, "Multi-Agency Radiation Survey and Site Investigation Manual" (MARSSIM) Chapter 6.4.1 "Direct Measurements". Appropriate instrument selection is also described in Chapter 6. Results must be reported in disintegrations per minute per 100 square-centimeters area (dpm/100cm²). Direct measurements for total residual contamination resulting from beta emitters must be performed close to the surface; however, you reported that measurements were made at 3 inches above ground level. Provide results of

surveys for total residual contamination that were performed with appropriate equipment and procedures.

- b. Scanning surveys should be performed as described in NUREG-1575, Revision 1, "Multi-Agency Radiation Survey and Site Investigation Manual" (MARSSIM) Chapter 6.4.2, "Scanning Surveys." Scanning surveys for beta emitters must be performed close to the surface; however, you reported that measurements were made at 3 inches above ground level. Based on the information provided in your letters, it is not clear if your scan surveys were performed at 3 inches above ground level, or 4 feet above ground level; in either case, the scan surveys were not close enough to the floor to detect beta emitters. Provide results of scan surveys that performed with appropriate equipment and procedures.

The MARSSIM document can be found online through the NRC web site at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1575/>.

3. For each Ludlum instrument used in your surveys, provide the manufacturer name and model number, serial number, type of instrument and detector, and the most recent calibration date for the instrument. Also provide information showing that the instrument and detector were sufficiently sensitive to detect the radiation levels necessary for the surveys, such as calculations of the minimum detectable activity or lower limit of detection. Although the manufacturer was listed for the Ludlum survey meters, the number listed could not be found in the Ludlum catalogue. In addition, although Item 5 of the June 21 letter stated that the minimum detectable activity was attached, that information could not be found in the attachments.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Licensee Toolkits, see our toolkit index page**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention at the Region I Office and refer to Mail Control No. 577439. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5040.

If we do not receive a reply from you within 14 calendar days from the date of this letter, we will assume that you require more time to gather the information requested or do not wish to pursue your application, and we will void the action. This action is without prejudice to the resubmission of an application for release of the waste facility at a future date.

W. Frederick

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Please note that the office of the Region I USNRC Division of Nuclear Materials Safety has moved effective May 9, 2012. Our new address is:

U. S. Nuclear Regulatory Commission
Region I
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713

Sincerely,

Original signed by Elizabeth Ullrich

Betsy Ullrich
Senior Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

cc:

Satya R. Bose, Ph.D., Radiation Safety Officer

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