

**From:** Kim, Okjin J.  
**To:** Ullrich, Elizabeth  
**Cc:** Fleming, Jeffery S.  
**Subject:** RE: NRC license renewal - additional questions  
**Date:** Monday, June 01, 2015 4:57:50 PM  
**Attachments:** Responses to additional questions regarding the renewal application 08-16631-01 Jun 1 2015.pdf

08-16631-01  
030 19607

Dear Ms. Ullrich,

The attached please find a PDF file, 3 pages including questions and additional information.

Regards,

Jean

Okjin Kim PhD  
Compliance Officer  
44/200-14  
Division of Sciences and Mathematics  
University of the District of Columbia  
Tel: 202-274-6036  
okjin.kim@udc.edu

**From:** Ullrich, Elizabeth [mailto:Elizabeth.Ullrich@nrc.gov]  
**Sent:** Friday, May 29, 2015 10:56 AM  
**To:** Kim, Okjin J.  
**Subject:** NRC license renewal - additional questions

University of the District of Columbia  
License No. 08-16631-01  
Docket No. 030-19607  
Control No. 586791

Dr. Kim,

I am reviewing your application for renewal of the NRC License No. 08-16631-02. I need the following additional information:

1. Item 7 identifies the authorizes users as Deepak Kumar, Ph. D. and yourself. Your current license also lists Carolyn Cousin, Ph.D. and Freddie Mae Dixon, Ph.D. Confirm if either Dr. Cousin and Dr. Dixon should continue to be listed on, or removed from, the list of authorized users on the license.
2. Item 8 describes your commitments for training individuals working I or frequenting areas where radioactive materials are used. Please identify (by name or title) the instructor for this training, the instructor's qualifications, and the method of training (such as online training, one-on-one individual instruction, classroom lecture, etcetera).
3. In Item 10, "Radiation Safety Program", the second section, "Personnel Monitoring Devices," states that film badges or rings will be distributed by the RSO on a quarterly basis. However, the fourth section, "Occupational Dose," states that you

586791

have either done a prospective evaluation, or will monitor individual as described in the NUREG\_1556, Volume 7 guidance. Please note that very few companies offer whole-body film dosimeters anymore, so if personnel monitoring devices are distributed, they are more likely to be either thermoluminescent dosimeters (TLD) or optically-stimulated luminescent (OSL) dosimeters. In addition, film is not suitable for quarterly exchange. Almost all ring dosimeters are TLD, which can be exchanged quarterly. Confirm if you are actually using whole body dosimeters and/or ring dosimeters, and if so, the type of dosimeter and frequency of exchange. Alternately, you may retract the paragraph "Personnel Monitoring Devices" because you have made an acceptable commitment to monitoring and assessment in the section "Occupational Dose."

Please respond to this request for additional information in a letter signed by a management representative sent by regular mail; OR by facsimile of a signed letter to (610) 337-5269; OR by a pdf of a signed letter, attached to an email. Please include your license number, and the control number, on your letter so that the response can be processed correctly as part of this renewal action. If you have any questions, please contact me by telephone or email as shown below.

Thanks,

**Betsy Ullrich**

Betsy Ullrich, Senior Health Physicist

Commercial, Industrial, R&D and Academic Branch

Division of Nuclear Materials Safety

US NRC Region I Office

2100 Renaissance Boulevard, Suite 100

King of Prussia, PA 19406

(610) 337-5040 (office)

(484) 919-8348 (cell)

[Elizabeth.Ullrich@nrc.gov](mailto:Elizabeth.Ullrich@nrc.gov)



Division of Sciences and Mathematics

Okjin Kim PhD, RSO/Compliance Officer  
University of the District of Columbia  
44/200-14  
4200 Connecticut Ave. NW,  
Washington, DC 20008  
Tel: 202-274-6036  
[okjin.kim@udc.edu](mailto:okjin.kim@udc.edu)

June 1, 2015

Betsy Ullrich, Senior Health Physicist  
Commercial, Industrial, R&D and Academic Branch  
Division of Nuclear Materials Safety  
US NRC Region I Office  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 19406  
(610) 337-5040 (office)  
(484) 919-8348 (cell)  
[Elizabeth.Ullrich@nrc.gov](mailto:Elizabeth.Ullrich@nrc.gov)

RE: Responding your email regarding the renewal of Materials License No. 08-16631-02  
(Docket No. 03019607, Control No. 586791)

Dear Ms. Ullrich,

I am responding to your recent email that you requested additional information of three items in the renewal application of Material License No. 08-16631-02 (Docket No. 0301967). I enclosed your request and I provided the information below in the individual request/question.

1. "Item 7 identifies the authorizes users as Deepak Kumar, Ph. D. and yourself. Your current license also lists Carolyn Cousin, Ph.D. and Freddie Mae Dixon, Ph.D. Confirm if either Dr. Cousin and Dr. Dixon should continue to be listed on, or removed from, the list of authorized users on the license."

→ **Authorized users:** Please remove Drs. Cousin and Dixon from the list of the authorized users.

2. "Item 8 describes your commitments for training individuals working I or frequenting areas where radioactive materials are used. Please identify (by name or title) the instructor for this training, the instructor's qualifications, and the method of training (such as online training, one-on-one individual instruction, classroom lecture, etcetera)."

→ **8. Training for individuals working in or restricted areas.**

Individuals working with radionuclides will be trained when he/she has no previous experience and training in use of radioactive materials via a professional online training at Dade Moeller Training Academy Online (8 hours). The course description is shown in the link, <http://www.radtrainonline.com/courses/viewcoursepopup.asp?CourseID=1>.

In addition, he/she will be instructed one-on-one individual instruction by the RSO with an extensive experience in using and handling with radioactive materials when needed. When individuals request/need more training in use of radiation materials other than Basic Radiation Safety online course, he/she will be trained more by taking online courses offered at the site, Dade Moeller Training Academy Online, <http://www.radtrainonline.com/courses/default.asp#>.

3. "In Item 10, "Radiation Safety Program", the second section, "Personnel Monitoring Devices," states that film badges or rings will be distributed by the RSO on a quarterly basis. However, the fourth section, "Occupational Dose," states that you have either done a prospective evaluation, or will monitor individual as described in the NUREG\_1556, Volume 7 guidance. Please note that very few companies offer whole-body film dosimeters anymore, so if personnel monitoring devices are distributed, they are more likely to be either thermoluminescent dosimeters (TLD) or optically-stimulated luminescent (OSL) dosimeters. In addition, film is not suitable for quarterly exchange. Almost all ring dosimeters are TLD, which can be exchanged quarterly. Confirm if you are actually using whole body dosimeters and/or ring dosimeters, and if so, the type of dosimeter and frequency of exchange. Alternately, you may retract the paragraph "Personnel Monitoring Devices" because you have made an acceptable commitment to monitoring and assessment in the section "Occupational Dose."

→ As you suggested, we retracted Personnel Monitoring Devices in the Item 10.

#### **10. Radiation Safety Program:**

##### **Radiation Monitoring instruments:**

Geiger counter, Model GSM-110 (Serial number: 6415) with a pancake probe (Model HP-265; Serial number: 5379): calibration will be done annually by RSO, Inc., (5206 Minnick Rd, Laurel, MD 20707).

**Material Receipt and Accountability:** Procedures of the receipt of radionuclides and storage are given in the UDC radiation safety handbook. Physical inventories will be conducted at intervals not to exceed 6 months, to account for all radioactive materials and devices received and possessed under the license.

**Occupational Dose:** We have done a prospective evaluation and determined that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20.1201 or we will monitor individuals in accordance with the criteria in the section entitled, "Radiation Safety Program-Occupation Dose" described in NUREG-1556, Vol. 7, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Academic, Research and Development and other Licenses of Limited Scope", published in December, 1999.

**Safe Use of Radionuclides and Emergency Procedures:** Safe use of the licensed radionuclides and emergency procedures are outlined in the UDC Radiation Safety Handbook. These procedures are followed by Appendix P to NUREG-1556, Vol.7,

"Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope", published in December, 1999.

**Survey:** We will survey our facility and maintain contamination levels in accordance with the survey frequencies and contamination levels published in Appendix Q to NUREG-1556, Vol.7, "Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope", published in December, 1999. Leak test will be performed at the intervals approved by NRC or an Agreement State to provide leak testing services to other licenses or using a leak test kit supplied by an organization authorized by NRC or an Agreement State to provide leak test kits to other licensees and according to the sealed source or plated foil manufacturer's (distributor's) and kit supplier's instructions.

**Waste Management:** We will use the Decay-In-Storage, model waste procedures that are published in Appendix T to NUREG-1556, Vol. 7, "Program-Specific Guidance about Academic, Research and Development and other Licenses of Limited Scope", published in December, 1999. The decay will be performed onsite or through the broker, RSO, Inc., (5206 Minnick Rd, Laurel, MD 20707).

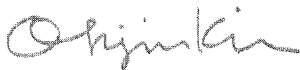
We will use instruments that meet the radiation monitoring instrument specifications published in Appendix M to NUREG-1556, Vol. 7, "Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope", published in December, 1999. We reserve the right to upgrade our survey instruments as necessary.

Should you have additional information, please do not hesitate to contact me by telephone at (202) 274-6036 and/or email at [okjin.kim@udc.edu](mailto:okjin.kim@udc.edu).

Thank you for your kind and detailed request.

Sincerely,

Okjin Kim PhD



RSO/Compliance Officer  
Division of Sciences and Mathematics  
College of Arts and Sciences  
University of the District of Columbia  
44/200-14  
4200 Connecticut Ave. NW,  
Washington, DC 20008  
Tel: 202-274-6036  
[okjin.kim@udc.edu](mailto:okjin.kim@udc.edu)