



**INDIANA UNIVERSITY**

**OFFICE OF RESEARCH ADMINISTRATION  
RADIATION SAFETY - INDIANAPOLIS**

December 16, 2013

Materials Licensing Section  
U.S. Nuclear Regulatory Commission, Region III  
2443 Warrenville Road, Suite 210  
Lisle, IL 60532-4352

Re: NRC License No. 13-02752-03  
Control No. 583330

Attn: Cassandra Frazier

Attached please find our responses to your request for additional information provided by email on November 25, 2013. Should you have additional questions, please do not hesitate to contact me.

Sincerely,

Mack L. Richard, MS, CHP  
Director of Health Physics/Radiation Safety Officer

Attachment

ATTACHMENT

RESPONSES TO NOVEMBER 20, 2014 TELEPHONE CONVERSATION AND FOLLOW-UP  
EMAIL MESSAGE FROM CASSANDRA FRAZIER TO MACK RICHARD  
MAIL CONTROL No. 583330

1. In your request dated March 14, 2014, you indicate that the "strict application of the decommissioning and notification requirements specifically driven by 10 CFR 30.36(d)(4) is a challenge under your broad scope license and creates unnecessary and time consuming paperwork for your institution and the NRC." Please provide a more detailed description with emphasis on how this regulation creates "unnecessary and time consuming paperwork for your institution as a broad scope.

M. Richard Response: Broad scope licensees have the latitude to both approve and terminate radionuclide use in laboratory areas in multiple buildings under their licenses. Thus, laboratories in which radionuclide use is either authorized or terminated change frequently. In some cases, a radionuclide user may choose to terminate his/her use of radioactive material within a given laboratory which in turn is located within a given building. In other cases, the radionuclide user may wish to retain the ability to utilize radioactive materials in a given laboratory, even though his/her current use may be temporarily halted. If that laboratory is the last such laboratory authorized in a particular building, 10 CFR 30.36(d)(4) requires the entire building be decommissioned within 24 months from the date the last radionuclide use was conducted.

While the IUMC Radiation Safety Office performs some surveys (wipe tests and direct radiation surveys if required) when radionuclide use in individual laboratories is terminated, those surveys are not as rigorous as a full building decommissioning survey. Full building decommissioning surveys not only require wipe tests and direct radiation surveys in the laboratory itself, but also surveys of ventilation ducting and points where effluent enters the main sanitary sewer. In order to be compliant with MARSSIM requirements, these types of surveys are best performed by contractors who are knowledgeable of those requirements and have all of the necessary equipment required for those surveys. Such surveys may also require extraordinary means to access certain areas (e.g. cutting into ventilation ducting to access inner surfaces). Within the past few years, IUMC has decommissioned two buildings which were going to be demolished and the cost for performing and documenting the full decommissioning of those buildings was \$17,434 and \$66,523. IUMC is currently decommissioning another building that is to be transferred to another owner who plans to demolish the building. The estimated cost for that project is \$78,577.

In the aforementioned cases, it is known that the buildings were going to be demolished or transferred to another owner. Thus, decommissioning those buildings is reasonable. However, a different situation exists with other buildings that continue to have usable laboratory space after radionuclide use has ceased. As long as laboratory space is available in a given building, it is always possible that radionuclide use could be resumed in that building, including after 24 months have elapsed. As such, to spend the time, effort, and funds to decommission a building, only to have radionuclide use resume in that building after decommissioning has taken place would be a tremendous waste of resources as the building would have to be decommissioned again in the future.

2. Item 2 of actions that will be implemented by your institution, states that laboratories will be audited at least every six months. Please provide a description of the audits that will be performed (e.g. surveys, etc.).

M. Richard Response: The IUMC/IUPUI Radionuclide Radiation Safety Committee (RRSC) issues "Radionuclide Use Permits" to individuals who utilize radioactive materials. Included on those permits are locations of use (building and room number). The Radiation Safety Staff performs audits on any authorized laboratories at least every six months, regardless of whether or not radionuclide use has taken place. Those audits include verification that all postings are in place and that all radiation safety requirements are being followed. If radionuclide use has taken place since the previous audit, wipe tests and direct radiation surveys (if applicable) are also performed by the Radiation Safety Staff.

3. Item 3(c) states that if no future use of radionuclides occur in an effected building, you will notify NRC and perform a full decommissioning of the building. Please provide a timeframe on when you plan to notify NRC. Also, provide a description of your "full decommissioning."

M. Richard Response: Such notification would be provided within 60 days as required in 10 CFR 30.36(d)(2). Our interpretation of a "full decommissioning" is explained above in the response to Item 1.

**Tomczak, Tammy**

---

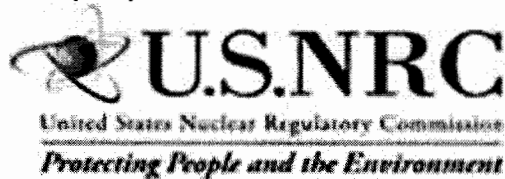
**From:** Frazier, Cassandra  
**Sent:** Tuesday, December 16, 2014 9:32 AM  
**To:** Tomczak, Tammy  
**Subject:** FW: Follow-UP to Telephone Conversation - Control No. 584898  
**Attachments:** Response to C. Frazier Email - Control No. 583330.pdf  
  
**Importance:** High

Tammy,

As we discussed, pls. process the attached response. I need the ML # to add to a TAR that I am working on. Thanks so much.

*Sandy*

**Cassandra F. Frazier**  
**Senior Health Physicist**  
**Materials Licensing Branch**  
**U.S. Nuclear Regulatory Commission**  
**Region III**  
**2443 Warrenville Road, Suite 210**  
**Lisle, IL 60532-4352**  
**Office: (630) 829-9830**  
**Fax: (630) 515-1259**



<http://www.nrc.gov/>

 Please consider the environment before printing this e-mail.  
Thank you!

---

**From:** Richard, Mack L [<mailto:mrichar@iu.edu>]  
**Sent:** Tuesday, December 16, 2014 9:13 AM  
**To:** Frazier, Cassandra  
**Subject:** Follow-UP to Telephone Conversation - Control No. 584898  
**Importance:** High

Hi, Sandy:

Attached please find the information you requested. Should you have any additional questions, don't hesitate to call or email.

Regards,  
Mack R.

**Mack L. Richard, MS, CHP**  
**Director of Health Physics – IU Office of Research Compliance**  
**Radiation Safety Officer for:**  
**IU Medical Center/IUPUI**

**IU Health (Academic Medical Center – Downtown Campus)**

**Eskenazi Hospital**

**Phone: (317) 274-0330**

**Rad. Safety Office Phone: (317) 274-4797**

**Fax: (317) 274-2332**

**[mrichar@iu.edu](mailto:mrichar@iu.edu)**