



CONVERSATION RECORD

09/10/2015

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU James F. Schweitzer, Ph.D., CHP, Radiation Safety Officer (RSO)		DATE OF CONTACT 09/03/2015	TYPE OF CONVERSATION <input type="checkbox"/> E-MAIL <input checked="" type="checkbox"/> TELEPHONE <input type="checkbox"/> INCOMING <input checked="" type="checkbox"/> OUTGOING
E-MAIL ADDRESS jfschwei@purdue.edu		TELEPHONE NUMBER (765) 494-2350	

ORGANIZATION Purdue University- Radiological and Environmental Management 550 Stadium Mall Dr., West Lafayette, IN 47907	DOCKET NUMBER(S) 030-00696
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LICENSE NUMBER(S) 13-02812-04	CONTROL NUMBER(S) 586719
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**SUBJECT**  
We have reviewed your April 30, 2015, license renewal application and, as discussed, will continue upon receipt of additional information summarized below. As discussed, we expect to receive your written response on or before October 16, 2015.

**SUMMARY AND ACTION REQUIRED:**

The attached page requests additional information as follows:

- Authorized materials and uses as noted
- Campus maps; Facility diagrams and descriptions for waste and other special use areas; also sample laboratory and animal use areas
- Expanded radioactive waste program including for labeling, liquids/sewerage, air releases, and waste compaction

Submit requested information, referencing Control No. 586719 as listed at the top of this memo. Please FAX your response to my attention at (630) 515-1078. You may also scan your response and send to me via email, as a pdf file. Include a signed and dated cover letter with your response. Direct any questions you have to me at (630) 829-9892 or sara.forster@nrc.gov.

Also, as discussed, please note that any supplemental request for information - based on discussions and observations completed during our September 16, 2015 site visit will be transmitted to you in writing shortly after that visit. You may submit that information together with your response to the items outlined above.

**Continue on Page 2**

NAME OF PERSON DOCUMENTING CONVERSATION Sara A. Forster, Materials Licensing Branch, Region III Office, 2443 Warrenville Road, Suite 210, Lisle, Illinois 60532
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SIGNATURE  
*Sara A. Forster*

09/10/2015

**Additional Information Requested**

**RADIOACTIVE MATERIALS AUTHORIZATIONS AND USE**

- 1.1. Your request for authorizations in Items L., M., N., S., T, U., BB., GG., RR., SS., TT., UU., and WW., under Item 5.0, "Radioactive Material" may be able to simplified as needed:  
**In lieu of listing Items L., M., N., S., T, U., BB., GG., RR., SS., TT., UU., and WW., please evaluate your needs and resubmit the request, as appropriate. For example, you may be able to submit your request as, "Any byproduct material and/or source material with Atomic Numbers 84-103, inclusive." In submitting any A.N. 84-103 byproduct/source material request, please provide an overall possession limit as well as a maximum activity per radionuclide.**
  
- 1.2. Your request for authorizations in Items Y., Z., AA., HH., II., JJ., KK., LL., MM., NN., OO., PP., and QQ., under Item 5.0, may also be simplified as needed:  
**In lieu of listing Items Y., Z., AA., HH., II., JJ., KK., LL., MM., NN., OO., PP., and QQ., please evaluate your needs and resubmit the request, as appropriate. For example, you may be able to submit your request as, "Any special nuclear material with Atomic Numbers 84-103, inclusive." In submitting any A.N. 84-103 special nuclear material request, please provide an overall possession limit as well as a maximum activity per radionuclide. Finally, in Item 6.0, "Purposes for Which Licensed Material Will be Used," please confirm that any research and development will be in accordance with Title 10 of the *Code of Federal Regulations* Section 70.4.**
  
- 1.3. Your request to separately list materials permitted by 10 CFR 35.200 and 35.300, as listed in W. and X. under Item 5.0, for veterinary use is not standard NRC format for an academic broad scope licensee. It is our understanding that the primary radionuclides used under these authorizations are fluorine-18, technetium-99m, molybdenum-99, and iodine-131:  
**In lieu of listing Items W., and X., please evaluate your use of medical radioisotopes and resubmit your request at A., "Any byproduct material with Atomic Numbers between 1 and 83, inclusive," under Item 5.0. In removing your line items for 35.200 and 35.300 material, please update your overall possession limit as needed, and list any added exceptions to the A.N. 1-83 request.**
  
- 1.4. Concerning Item VV., "cadmium-109" under Item 5.0, Item 6.0 omitted references to letters dated September 26, 2011, July 22, 2013, and November 25, 2013.  
**Please attach copies of those letters (or an inclusive summary thereof) with your response, clearly describing the authorized use of cadmium-109.**
  
- 1.5. The application also omitted references to letters dated September 30, 2014, and December 16, 2014, concerning the authorization for generally licensed sources.  
**Please attach copies of those letters (or an inclusive summary thereof) with your response, clearly describing the authorized uses of previous GL sources.**

1.6. Manufacturers and model numbers are needed for all portable gauging devices to be authorized under the license.

**For Item 6.0 subitem d. (referencing Items 5.0.I. and 5.0.Q.), please list all gauge manufacturers and models to be authorized under the license. Please also revise possession limits to reflect the actual amounts needed under the license.**

1.7. Manufacturers and model numbers are typically expected for other sources and devices to be authorized under the license.

**As applicable and as discussed, for sealed sources and/or devices other than those in portable gauging devices to be listed on the license, please provide manufacturers and model numbers to be authorized under the license and confirm that such sources and devices will be used in accordance with the sealed source and device registry.**

#### FACILITIES AND EQUIPMENT

2.1. **As discussed, for each campus, agricultural research center, or other separate address where materials will be used or stored, please provide an overall description and diagram (include buildings) of areas where radioactive materials are used or stored, under this license. Please specify which authorized activities – identified in Items 5.0 and 6.0 of your application – may be performed at each location.**

2.2. **Please provide facility diagrams corresponding to each irradiator area, areas where cadmium-109 is used in humans, and areas for instrument calibrations, veterinary nuclear medicine, and veterinary radioiodine therapy. Also provide diagrams for each radioactive waste storage or processing area and for each area of use as discussed. Also provide typical diagram for other animal handling areas, high and low radiation laboratories or work places, and agricultural research center facilities. Each diagram should include approximate dimensions, room numbers, and note locations of sinks, hoods, hot cells, freezers, storage, and other key radioactive materials use areas.**

#### WASTE PROGRAM

3. Waste management information provided in the renewal application did not address the minimum criteria outlined in the Model Procedures in NUREG 1556, Volume 11, Appendix V. For example, as discussed, no waste compaction procedures or incineration procedures were included with the application and sanitary sewerage limitations are unclear.

**Please either: (1) confirm that waste procedures will be in accordance with NUREG 1556, Volume 11, Appendix V, or (2) if only some elements of the model procedure apply, submit your procedures which may include elements of Appendix V. As discussed, submitted procedures must include detailed responses concerning waste compaction and incineration programs.**

## Forster, Sara

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**From:** Forster, Sara  
**Sent:** Thursday, September 10, 2015 4:51 PM  
**To:** 'jfschwei@purdue.edu'  
**Subject:** Additional Information Request for Purdue University renewal, NRC Lic. No. 13-02812-04, CN 586719  
**Attachments:** 01100.586719.13-02812-04 Conversation Record.pdf

Dear Dr. Schweitzer:

Please see the attached file for additional information needed to complete the review of the renewal application for NRC Lic. No. 13-02812-04. Note that the attached phone conversation record requests additional information on or before close of business on October 16, 2015 (30 days after our scheduled September 16, 2015 site visit), as discussed. Additional guidance may be found in either NUREG 1556, Vol. 7, "Program Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope;" or NUREG 1556, Vol. 11, "Program-Specific Guidance About Licenses of Broad Scope," which may be found, respectively, at:

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v7/>; or  
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v11/>.

Submission of your response as a pdf file attached to an email or via facsimile will allow for the quickest processing. Your response should include a signed and dated letter transmitting all additional information. Do not hesitate to call me with any questions you may have in completing your response.

We will see you on Wednesday, September 16, 2015, at 8 am at the Radiological and Environmental Management office, located at 550 Stadium Mall Drive in West Lafayette. I will call your phone number – (765) 494-2350 – upon arrival to the building. If you have any additional special instructions for contacting you, navigating the campus, or parking, they are appreciated.

Sincerely yours,

**Sara A. Forster, Health Physicist Licensing Reviewer**  
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Division of Nuclear Materials Safety  
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Lisle, IL 60532-4352  
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