



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

Felicity J. Beckfield, M.S., CHP
Radiation Safety Officer
The Curators of the University of Missouri
c/o Gary Ward
Vice Chancellor of Operations
Environmental Health and Safety, #8 RPDB
Columbia, MO 65211

OCT 05 2017

Dear Ms. Beckfield:

Enclosed is Amendment No. 117 to your NRC Material License No. 24-00513-32 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions.

If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

This amendment was prepared using our new Web Based Licensing system (WBL) and, to the greatest extent possible, implementing the changes requested in your letter dated December 20, 2013, Appendix E. As a result, many changes, additions, deletions, renumbering and reorganization of line items and Conditions to your license have been made to your license.

The following is a brief summary of certain key changes and a request for some additional information:

1. Condition Nos. 15 and 18 are new standard conditions for your license.
2. Subitem No. 6.A. in WBL did permit the listing of byproduct materials with an atomic number between "3 - 83," instead of "1 - 83." I had asked you about changing this authorization to "1 - 83" but then WBL allowed the original listing after all.
3. Subitem Nos. 9.G. and 9.H. refer to uses authorized in Subitem No. 9.B. because polonium-210 and neptunium-237 have atomic numbers between 84 - 96.
4. The authorization for gadolinium-153 sealed sources was retained in Subitem Nos. 6. - 9.R, inclusive, because the authorization for 10 CFR 35.500 that was referred to in Appendix E to your letter dated December 20, 2013, was deleted when this license was renewed in Amendment No. 112 dated December 15, 2015. The authorization for materials in 10 CFR 35.500 had last appeared on the license in Amendment No. 111 dated August 15, 2013.

The enclosed document contains sensitive security-related information.
When separated from this cover letter this letter is uncontrolled.

F. Beckfield

5. For Subitem Nos. 7.J. and 7.P., please submit the manufacturer's names and model numbers to specifically identify the sealed sources authorized for each device. Please also update and confirm, as appropriate, the manufacturer's names and sealed source model numbers for Subitem Nos. 7.K. and 7.T.

Please submit this as "additional information to control number 600657" addressed to my attention, within 120 days of the date of this letter (on or about February 5, 2018). If an alternative timeframe is needed to respond, please contact me by telephone at (630) 829-9841 or email at colleen.casey@nrc.gov to make arrangements.

6. In the letter dated December 20, 2013, Appendix E, a change in authorization that appeared to be intended for "thorium" was instead listed as "uranium." We took this error into consideration in preparing this amendment to make the correct adjustment in authorization.
7. In the letter dated December 20, 2013, Appendix E, requests were made to consolidate uranium (and, erroneously, thorium) authorizations into the "broad scope" authorization that is now Subitem No. 6.A.

We were unable to approve these consolidation requests because uranium and thorium are not byproduct material, by definition in 10 CFR 30.4. They are source material pursuant to 10 CFR Part 40.

However, since these materials are authorized for use according to the definition of "research and development" in 10 CFR 30.4, because 10 CFR 40.4 has no definition of "research and development," we have listed their use by referencing Subitem No. 9.A.

This amendment also includes authorization, through documents listed in Condition No. 32, for a temporary interim Radiation Safety Officer for a period of time not to exceed 13 weeks.

NRC's Regulatory Issue Summary (RIS) 2005-31 provides criteria to identify security-related sensitive information and guidance for handling and marking of such documents. This ensures that potentially sensitive information is not made publicly available through ADAMS, the NRC's electronic document system.

Pursuant to NRC's RIS 2005-31 and in accordance with 10 Code of Federal Regulations 2.390, the enclosed license document is exempt from public disclosure because its disclosure to unauthorized individuals could present a security vulnerability.

The RIS may be located on the NRC Web site at: <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2005/ri200531.pdf> and the link for frequently asked questions regarding protection of security related sensitive information may be located at: <http://www.nrc.gov/reading-rm/sensitive-info/faq.html>.

A copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

F. Beckfield

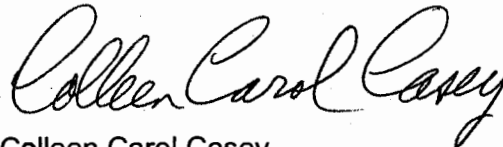
You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Statement of Policy and Procedure for NRC Enforcement Actions.

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

The NRC's Safety Culture Policy Statement became effective in June 2011. While a policy statement and not a regulation, it sets forth the agency's *expectations* for individuals and organizations to establish and maintain a positive safety culture.

You can access the policy statement and supporting material that may benefit your organization on NRC's safety culture Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html>. We strongly encourage you to review this material and adapt it to your particular needs in order to develop and maintain a positive safety culture as you engage in NRC-regulated activities.

Sincerely,



Colleen Carol Casey
Materials Licensing Branch

License No. 24-00513-32
Docket No. 030-02278

Enclosure:

Amendment No. 117