



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL EXPOSURE RESEARCH LABORATORY
Research Triangle Park, NC 27711

Office of
Research and Development

April 27, 2020

Licensing Assistant Team
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region I
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

Supporting Information for NRC Form 313 || Dated June 26, 2017.

Dear License Reviewer:

The purpose of this letter is to request an amendment to radioactive materials license No. 32-14048-04. The United States Environmental Protection Agency located at Research Triangle Park, North Carolina (EPA-RTP) would like to add license condition numbers 7H., 8H. and 9H. as follows:

6H. <u>radioactive material</u>	7H. <u>chemical and/or physical form</u>	8H. <u>maximum amount</u>
Th-230	Any	30 μ Ci

9H. Purpose for which licensed material will be used.

For use in Research and Development as defined in 10 CFR 30.4.

BACKGROUND INFORMATION:

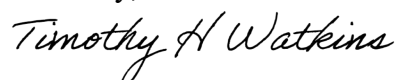
The need for this license amendment is to support EPA Region 7 staff in Superfund site remediation activities. Using soil standards as a surrogate, research will be conducted to use low energy gamma detection of a radionuclide (Th-230) that is not primarily a gamma emitter in an effort to allow simpler surveying procedures without requiring complex radiochemistry to quantify naturally occurring radionuclides. The soil samples incorporating various microcurie quantities of Th-230 will be sealed inside 12-inch diameter Tupperware containers. These sealed sources will be prepared by Eckert & Ziegler Isotope Products, Atlanta, GA. A total of two containers ranging in Th-230 activities from 2.4 μ Ci – 4.8 μ Ci will be prepared by this company. Future research may involve the preparation of additional sources at the same activity levels not to exceed the total possession limit as stated above.

The research will be conducted in a laboratory setting at the EPA-RTP location.

In accordance with 10 CFR 30.35(d) and EPA License 32-140418-04 condition number 12, the possession of combination of unsealed by product material isotopes will continue to be restricted to less than 10^5 times the applicable limits in Appendix B of 10 CFR Part 30. Therefore, if approved, this license amendment does not impact the EPA at Research Triangle Park, NC's financial assurance \$1,125,000 value.

Please contact Ritchie Buschow, RSO, if you need any additional technical information regarding this license amendment request at 919-541-0550.

Sincerely,



Timothy H. Watkins, Director
Center for Environmental Measurement &
Modeling,
ORD Designated Senior Management Safety,
Health, and Environmental Management Official

Enclosure: [1] NRC Form 313; dated June 26, 2017.

cc: Dr. Michael F. Hughes, Chair, Radiation Safety Committee
Mr. Ritchie Buschow, Radiation Safety Officer
Mr. Todd W. Baker, Director, SHEMB and Assistant Radiation Safety Officer
Material License File