



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RESEARCH AND DEVELOPMENT
NATIONAL RISK MANAGEMENT RESEARCH LABORATORY
CINCINNATI, OHIO 45268

May 12, 2017

U.S Nuclear Regulatory Commission
Region III - Mail Control No. 592887
2443 Warrenville Road
Suite 210
Lisle, Illinois 60532-4352

Re: Information requested for renewal application of NRC License No. 34-12736-02
Attn: Frank Tran

The following information is provided as requested in the phone conversation and subsequent email from Mr. Tran on May 11, 2017.

1. Your current license (Amendment No. 30) is authorized for cadmium-109 sealed source for use in a lead detector. You provided that the sealed source was placed in storage and has decayed to background radiation level; therefore, it was disposed as regular waste. Please provide additional information regarding this licensed material (number of sources were disposed, last known activity per source, and the disposal date).

Number of sources: 1

Device information: Panametrics Panalyzer 4000, Serial # 708

Isotope: Cd-109

Original Activity: 3 mCi (date of assay: 10/1/1987)

Date of disposal: 05/19/2016

Activity on date of disposal: 4.67×10^{-4} μ Ci

ALI - 40 μ Ci inhalation, 300 μ Ci ingestion

Radiation level: Background

Method of disposal: Source removed from device and placed in regular waste.

2. In Item 11, "Waste Management", of the application, the listed concentration for H-3 and C-14 in the medium, animal carcasses or animal tissue for disposal as non-radioactive waste are exceeded the limit set forth in 10 CFR 30.70. Please provide a justification and/or an update to Item 11.

We apologize for the error. A typo occurred when copying into the application the guidance from NUREG 1556 vol 7, page 8-52. The " μ " was not included in the units of activity. Please accept the following revised Item 11 submission reflecting the lower activity levels.

Item 11: Waste Management

We will use the model waste procedures published in Appendix T to NUREG - 1556, Vol. 7, "Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope," dated December 1999.

In addition, radioactive waste may be transferred to an authorized recipient for disposal. We shall verify that the intended recipient is authorized to receive the radioactive waste prior to making any shipment. The waste will be packaged in approved containers for shipment, and each container must identify the radioisotopes and the amounts contained in the waste. Additionally, packages must comply with the requirements of the particular burial site's license and state requirements. Each shipment must comply with all applicable NRC and DOT requirements

The following radioactive wastes may be disposed of as non-radioactive waste:

- Liquid scintillation media (including vials and other items contaminated with liquid scintillation media) containing no more than 1.85 kBq (0.05 μ Ci) of H-3 or C-14 per gram of the medium; and
- Animal carcasses or animal tissue containing no more than 1.85 kBq (0.05 μ Ci) of H-3 or C-14 per gram averaged over the weight of the entire animal.


Animal tissue or carcasses containing licensed material shall be disposed in a manner that will not permit their use either as food for humans or animals.

3. Please provide a copy of the Delegation of Authority for Radiation Safety Officer.

Please see the enclosed Delegation of Authority.

Thank you for consideration of our application.

Sincerely,



Stephen Musson, PhD, CIH, CHMM
Safety, Health, and Environmental Management Program Manager
US EPA National Risk Management Research Laboratory
513-569-7969

Enclosure



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RESEARCH AND DEVELOPMENT
NATIONAL RISK MANAGEMENT RESEARCH LABORATORY
CINCINNATI, OHIO 45268

To: Stephen Musson
From: Cynthia Sonich-Mullin, Director
Subject: Radiation Safety Office Delegation of Authority

This memo renews and reaffirms that you, Stephen Musson, have been appointed radiation safety officer and are responsible for ensuring the safe use of radiation under the EPA's Safety, Health, and Environmental Management (SHEM) Program. You are responsible for managing the Radiation Protection Program, identifying radiation protection problems, initiating, recommending, or providing corrective actions, verifying implementation of corrective actions, stopping unsafe activities, and ensuring compliance with regulations. You are hereby delegated the authority necessary to meet those responsibilities, including prohibiting the use of byproduct material by employees who do not meet the necessary requirements and shutting down operations, when justified, to maintain radiation safety. You are required to notify management if staff does not cooperate and does not address radiation safety issues. In addition, you are free to raise issues with the U.S. Nuclear Regulatory Commission at any time. It is estimated that you will spend 4 hours per week conducting radiation protection activities.

Cynthia Sonich-Mullin

5/12/17

Cynthia Sonich-Mullin
Director, National Risk Management Research Laboratory
Office of Research and Development
U.S. Environmental Protection Agency

Date

I accept the above responsibilities.

Stephen Musson

5/12/17

Stephen Musson

Date

cc: EPA Cincinnati Supervisors

Tran, Frank

From: Musson, Steve <Musson.Steve@epa.gov>
Sent: Friday, May 12, 2017 10:13 AM
To: Tran, Frank
Subject: [External_Sender] RE: Request for additional information for NRC License No. 34-12736-02
Attachments: Response to NRC questions.pdf

Dear Mr. Tran,

Please see the attached response to your request. Thank you for the consideration of our application.

Sincerely,

Stephen Musson, PhD, CIH, CHMM
Safety, Health, and Environmental Management Program Manager
US EPA National Risk Management Research Laboratory
26 W. Martin Luther King Drive
Cincinnati OH 45268
513-569-7969

From: Tran, Frank [mailto:Frank.Tran@nrc.gov]
Sent: Thursday, May 11, 2017 3:04 PM
To: Musson, Steve <Musson.Steve@epa.gov>
Subject: Request for additional information for NRC License No. 34-12736-02

Dear Dr. Musson:

We have reviewed the renewal application for NRC License No. 34-12736-02. As discussed with you today, we will need the following to complete our review.

- 1) Your current license (Amendment No. 30) is authorized for cadmium-109 sealed source for use in a lead detector. You provided that the sealed source was placed in storage and has decayed to background radiation level; therefore, it was disposed as regular waste. Please provide additional information regarding this licensed material (number of sources were disposed, last known activity per source, and the disposal date).
- 2) In Item 11, "Waste Management", of the application, the listed concentration for H-3 and C-14 in the medium, animal carcasses or animal tissue for disposal as non-radioactive waste are exceeded the limit set forth in 10 CFR 30.70. Please provide a justification and/or an update to Item 11.
- 3) Please provide a copy of the Delegation of Authority for Radiation Safety Officer (a sample is attached).

Please provide a response in writing with an authorized signature by June 12, 2017. Please refer Mail Control No. 592887 in the response to facilitate proper mail handling in our office. You could fax the response to 630-515-1078 or scan and email to frank.tran@nrc.gov.

If you have any question, please contact me at 630-829-9623 or reply to this email.

Thank you,

Frank Tran

Health Physicist/License Reviewer
NRC Region III/Division of Nuclear Materials Safety
Phone: 630-829-9623
Fax: 630-515-1078
Email: Frank.Tran@nrc.gov

