



College of Liberal Arts and Sciences
Dean's Office

October 1, 2013

VIA EMAIL: Sara.Forster@nrc.gov

Sara Forster
U.S. Nuclear Regulatory Commission - Region III
Division of Nuclear Materials Safety
2443 Warrenville Rd. - Ste. 210
Lisle, IL 60532-4352

**RE: License Amendment, Additional Information
Grand Valley State University
NRC License No.: 21-32172**

Dear Ms, Forster:

This letter is in response to your "Conversation Record" dated 9/26/2013 and our subsequent conversation in reference to Grand Valley State University's request to add Dr. Alan Steinman to our NRC License. Your initial review found insufficient documentation of Dr. Steinman's training and experience in radiation safety.

TRAINING

With respect to his current employment at GVSU, Dr. Steinman has been required to complete the same process all users of radioactivity must complete. Prior to research with radioactive material, each prospective Authorized User must complete the following:

1. Submit a protocol proposal for review and approval to GVSU's Radiation Safety Committee. The proposal must demonstrate a need for use of the isotope, describe past experience and training in radioactivity, and include information concerning hazards, safe operating practices, emergency response, and waste disposal during the project. Dr. Steinman has provided such a proposal and has been approved for use of radioactivity pending NRC License Amendments.
2. Complete GVSU's general laboratory radiation safety training. This consists of a 60 minute video and an examination. This was completed 9/27/2013.

3. Complete GVSU's introduction to radiation research and Radiation Safety Manual review. This is a discussion with either the Chair or RSO to review all aspects of GVSU's radiation safety program. This was completed 9/30/2013.

By the end of this 3-part process, Dr. Steinman has been required to either demonstrate his knowledge or receive training on the following: radiation protection principles, characteristics of ionizing radiation, units of radiation dose and quantities, detection and survey instruments, and hazards of exposure.

HANDS-ON EXPERIENCE

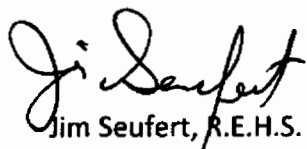
In addition to the protocol review and training process, Dr. Steinman has documented an extensive record of hands-on use of radioactive materials. The CV previously provided lists numerous publications of research with ^{33}P , including the following, which required both field and laboratory use of ^{33}P :

Mulholland, P.J., Steinman, A.D., and J.W. Elwood. 1990. Measurement of phosphorus uptake length in streams: comparison of radiotracer injection and stable PO_4 additions. Canadian Journal of Fisheries and Aquatic Sciences 47: 2351-2357.

This research project and others using ^{33}P were conducted during Dr. Steinman's post-doctoral research at Oak Ridge National Laboratory from 1987 to 1992. It was Dr. Steinman who was directly responsible for purchasing, receiving, inventorying, and arranging disposal of ^{33}P in the lab. In his research projects he would inject ^{33}P into various organisms to measure phosphorus uptake. Lab procedures that he was directly working with included the use of Liquid Scintillation Counters, survey meters, inventory records, and ring badge dosimeters. Typical laboratory quantities of ^{33}P were 2 uci, which is the same as he intends to use at GVSU. His laboratory was subject to periodic audits by the US Department of Energy radiation safety contractors. As is evident by his numerous publications on phosphorus movement in stream ecosystems, Dr. Steinman has demonstrated sufficient hands-on experience and understanding of radiation safety procedures to safely use ^{33}P at GVSU.

If you find this additional information sufficient, we request an expedited administrative approval process. We would like to be able to sample yet this October. With the imminent government shutdown and worsening weather, that window is closing quickly. Thank you for your time and understanding, and please do not hesitate to contact me at 616-331-8628 if you have any questions.

Sincerely,



Jim Seufert, R.E.H.S.
Radiation Safety Officer

Forster, Sara

From: Jim Seufert <seufertj@gvsu.edu>
Sent: Tuesday, October 01, 2013 9:25 AM
To: Forster, Sara
Subject: Revised letter
Attachments: GVSU .pdf

Sara,
I hope this one works for you...
Thanks, Jim