



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



C. HEIDI GREYER
DIRECTOR

December 21 , 2016

Mr. Frank Tran
Division of Nuclear Materials Safety
United States Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, Illinois 60532-4352

Dear Mr. Tran:

SUBJECT: NRC License Number: 21-05199-02, Mail Control Number: 592359

This letter is in response to a letter dated December 1, 2016, which requested additional information regarding the training and radioactive materials experience for Isreal O'Boyle. The enclosure to this letter provides that information.

If you should have any questions, please contact me via telephone, asselind1@michigan.gov; or MDEQ, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

David Asselin
Radiation Safety Officer
Radiological Protection Section
Office of Waste Management and
Radiological Protection
517-614-9913

Enclosure

NRC License No. 21-05199-02
Mail Control No. 592359
December 21, 2016

Question:

Please provide additional information regarding Mr. O'Boyle's training; specifically, trainings in the use of protective equipment, decontamination of contaminated protection equipment, NRC regulations (10 CFR 19, 20, 30 and 71), and licensee's operating and emergency procedures, and hands-on training with collection, transportation, and analysis of environmental samples, incident response samples and calibration standards. For your reference, we attached a copy of Appendix H to NUREG-1556, Volume 18 which State of Michigan commits to provide to users of this license.

Response:

Mr. O'Boyle's job designation is Lab Scientist. His job responsibilities include receiving and processing both environmental and incident response samples; collecting background environmental samples from Lansing, MI surface waters and local milk producers; and handling calibration standards that contain only exempt quantities of radioactive materials, such as those used to calibrate highly-sensitive laboratory equipment. He does not collect or transport samples with licensable quantities of radioactive material, such as those that would be collected for an incident response.

Under the supervision of Authorized Users, Mr. O'Boyle has worked with and received on-the-job training across the full array of his job responsibilities, including training on the laboratory's standard and emergency operating procedures, including the use of gamma spectroscopy software. He has also received training on the routine collection, transportation, and analysis of environmental samples from the vicinity of Lansing, MI. Operational experience from 1958 to the present has shown that these environmental samples have always met the exemption in 10 CFR 71.14(a) without exception. Based on this, any samples that Mr. O'Boyle may transport within the scope of his job are exempt from 10 CFR 71. These samples have also been exempt under the U.S. Department of Transportation regulations in Title 49 of the Code of Federal Regulations.

Since his work responsibilities do not include the collection or transportation of incident response samples, he has not received specific training on those tasks. Consistent with his job responsibilities, he has received specific training on how to receive, store, and safely handle incident response samples.

On the afternoon of November 28, 2016, Mr. O'Boyle attended annual training for Authorized Users which was developed and delivered by the Radiation Safety Officer. Consistent with NUREG-1556, Vol 18, Appendix H, the training covered:

- Fundamentals of radiation science – including definitions and characteristics of alpha, beta, gamma, x-ray, and neutron radiation
- Units of dose
- Occupational dose limits for adults
- Effects of acute radiation exposure
- Stochastic effects of radiation exposure
- Information specific to licensed sources, including radiation levels, safe handling, and emergency procedures
- Basic radiation protection principles (time, distance, shielding, and the ALARA principle)
- 10 CFR 19
- 10 CFR 20
- Lessons learned in calendar year 2016

NRC License No. 21-05199-02

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On the morning of December 15, 2016, Mr. O'Boyle received additional training from the Radiation Safety Officer on the following topics:

- **10 CFR 30**
- **10 CFR 71**
- **Sections of the NRC license applicable to his job responsibilities**
- **Protective Equipment**
- **Decontamination techniques for people and equipment**
- **Survey meters and survey technique**
- **Waste Management**
- **The licensee's Radiological Protection Plan**

Fax Transmission

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Office of Waste Management and Radiological Protection
Radiological Protection Section
P.O. Box 30241
Lansing, Michigan 48909-7741

To: Mr. Frank Tran
Division of Nuclear Materials Safety
U.S. NRC Region III **Date:** December 21, 2016

From: Jennifer Keyes *Jennifer Keyes*
Phone: 517-284-6581 **Pages:** 4, including this one
Fax: 517-373-4797 **Fax #:** 630-515-1259

Subject: Amendment to License Number 21-05199-02
Additional Information on Isreal O'Boyle's training and experience

COMMENTS:

Mr. Tran -

Attached, per your request to David Asselin, please see additional information on Isreal O'Boyle's training and experience to amend NRC License 21-05199-02.

Thank you for your help and assistance on this.