



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING

**EGLE**

LIESL EICHLER CLARK  
DIRECTOR

June 13, 2019

Materials Licensing Branch  
United States Nuclear Regulatory Commission  
Region III  
2443 Warrenville Road, Suite 210  
Lisle, Illinois 60532-4352

Dear Sir/Madam:

SUBJECT: NRC License Number: 21-05199-02

We are requesting an amendment to our license to:

1. Change Radiation Safety Officers
2. Add three Authorized Users
3. Modify one Authorized User
4. Remove one Authorized User
5. Amend/clarification to two documents in Enclosure 4 and one in Enclosure 5 of the license renewal.
6. Administrative change to address the renaming of the "Department of Environmental Quality (DEQ)" to "Department of Environment, Great Lakes, and Energy (EGLE)", and "Waste Management and Radiological Protection Division (WMPRD)" to "Materials Management Division (MMD)"

Two copies of this letter, NRC Form-313, NRC Form-531, and all attachments are enclosed.

If you have any questions, please contact me via phone; [asselind1@michigan.gov](mailto:asselind1@michigan.gov); or at the Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

David Asselin  
Radiation Safety Officer  
Radiological Protection Section  
Materials Management Division  
(517) 614-9913

Enclosures

**RECEIVED JUN 21 2019**

|   |   |  |                           |                                    |                    |                |                         |  |                        |  |
|---|---|--|---------------------------|------------------------------------|--------------------|----------------|-------------------------|--|------------------------|--|
| <b>NRC FORM 313</b><br>(10-2017)<br>10 CFR 30, 32,<br>33, 34, 35, 36,<br>37, 39, and 40   | <br><b>U.S. NUCLEAR REGULATORY COMMISSION</b><br><br><b>APPLICATION FOR<br/>MATERIALS LICENSE</b>  | <b>APPROVED BY OMB: NO. 3150-0120</b><br>Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to <a href="mailto:Infocollects.Resource@nrc.gov">Infocollects.Resource@nrc.gov</a> , and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection. |                           |                                    |                    |                |                         |  |                        |  |
| <b>INSTRUCTIONS: SEE THE CURRENT VOLUMES OF THE NUREG-1556 TECHNICAL REPORT SERIES ("CONSOLIDATED GUIDANCE ABOUT MATERIALS LICENSES") FOR DETAILED INSTRUCTIONS FOR COMPLETING THIS FORM: <a href="http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/st1556/">http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/st1556/</a>. SEND TWO COPIES OF THE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.</b>  |   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:</b><br>MATERIALS SAFETY LICENSING BRANCH<br>DIVISION OF MATERIAL SAFETY, STATE, TRIBAL AND RULEMAKING PROGRAMS<br>OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS<br>U.S. NUCLEAR REGULATORY COMMISSION<br>WASHINGTON, DC 20555-0001<br><br><b>ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:</b><br><br><b>IF YOU ARE LOCATED IN:</b><br>ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA,<br>GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE,<br>NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO,<br>RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN<br>ISLANDS, OR WEST VIRGINIA,<br><br><b>SEND APPLICATIONS TO:</b><br>LICENSING ASSISTANCE TEAM<br>DIVISION OF NUCLEAR MATERIALS SAFETY<br>U.S. NUCLEAR REGULATORY COMMISSION, REGION I<br>2100 RENAISSANCE BOULEVARD, SUITE 100<br>KING OF PRUSSIA, PA 19406-2713 | <b>IF YOU ARE LOCATED IN:</b><br>ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND<br>APPLICATIONS TO:<br>MATERIALS LICENSING BRANCH<br>U.S. NUCLEAR REGULATORY COMMISSION, REGION III<br>2443 WARRENVILLE ROAD, SUITE 210<br>Lisle, IL 60532-4352<br><br><b>IF YOU ARE LOCATED IN:</b><br>ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,<br>LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH<br>DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS,<br>UTAH, WASHINGTON, OR WYOMING,<br><br><b>SEND APPLICATIONS TO:</b><br>NUCLEAR MATERIALS LICENSING BRANCH<br>U.S. NUCLEAR REGULATORY COMMISSION, REGION IV<br>1600 E. LAMAR BOULEVARD<br>ARLINGTON, TX 76011-4511 |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.</b>  |   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>1. THIS IS AN APPLICATION FOR (Check appropriate item)</b><br><input type="checkbox"/> A. NEW LICENSE<br><input checked="" type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER <u>21-05199-02</u><br><input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____  | <b>2. NAME AND MAILING ADDRESS OF APPLICANT (Include zip code)</b><br>State of Michigan/MMD/EGLE<br>P.O. Box 30241<br>Lansing, MI 48909   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>3. ADDRESS WHERE LICENSED MATERIALS WILL BE USED OR POSSESSED</b><br>815 Filley St.,<br>Lansing, MI 48933  | <b>4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION</b><br>David Asselin<br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">BUSINESS TELEPHONE NUMBER</td> <td style="width: 50%;">BUSINESS CELLULAR TELEPHONE NUMBER</td> </tr> <tr> <td></td> <td>(517) 614-9913</td> </tr> <tr> <td colspan="2">BUSINESS E-MAIL ADDRESS</td> </tr> <tr> <td colspan="2">asselind1@michigan.gov</td> </tr> </table>   |  | BUSINESS TELEPHONE NUMBER | BUSINESS CELLULAR TELEPHONE NUMBER |                    | (517) 614-9913 | BUSINESS E-MAIL ADDRESS |  | asselind1@michigan.gov |  |
| BUSINESS TELEPHONE NUMBER   | BUSINESS CELLULAR TELEPHONE NUMBER  |  |                           |                                    |                    |                |                         |  |                        |  |
|   | (517) 614-9913  |  |                           |                                    |                    |                |                         |  |                        |  |
| BUSINESS E-MAIL ADDRESS   |   |  |                           |                                    |                    |                |                         |  |                        |  |
| asselind1@michigan.gov  |   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.</b>  |   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>5. RADIOACTIVE MATERIAL</b><br>a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.  | <b>6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.</b>  |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.</b>  | <b>7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.</b>   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>10. RADIATION SAFETY PROGRAM.</b>  | <b>9. FACILITIES AND EQUIPMENT.</b>   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>12. LICENSE FEES (Fees required only for new applications, with few exceptions*)</b><br>(See 10 CFR 170 and Section 170.31)<br>*Amendments/Renewals that increase the scope of the existing license to a new or higher fee category will require a fee.  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center;">FEE CATEGORY</td> <td style="width: 30%; text-align: center;">8A</td> <td style="width: 20%; text-align: center;">AMOUNT ENCLOSED \$</td> <td style="width: 20%; text-align: center;">0.00</td> </tr> </table>  |  | FEE CATEGORY              | 8A                                 | AMOUNT ENCLOSED \$ | 0.00           |                         |  |                        |  |
| FEE CATEGORY  | 8A  | AMOUNT ENCLOSED \$   | 0.00                      |                                    |                    |                |                         |  |                        |  |
| <b>PER THE DEBT COLLECTION IMPROVEMENT ACT OF 1996 (PUBLIC LAW 104-134), YOU ARE REQUIRED TO PROVIDE YOUR TAXPAYER IDENTIFICATION NUMBER. PROVIDE THIS INFORMATION BY COMPLETING NRC FORM 531: <a href="https://www.nrc.gov/reading-rm/doc-collections/forms/nrc531info.html">https://www.nrc.gov/reading-rm/doc-collections/forms/nrc531info.html</a>.</b>   |   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.</b><br>THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 37, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.<br>WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.  |   |  |                           |                                    |                    |                |                         |  |                        |  |
| <b>CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE</b><br>David Asselin, Radiation Safety Officer   | <b>SIGNATURE</b><br>  | <b>DATE</b><br>6/13/2019   |                           |                                    |                    |                |                         |  |                        |  |
| <b>FOR NRC USE ONLY</b>   |   |  |                           |                                    |                    |                |                         |  |                        |  |
| TYPE OF FEE   | FEE LOG   | FEE CATEGORY   | AMOUNT RECEIVED           | CHECK NUMBER                       | COMMENTS           |                |                         |  |                        |  |
|   |   |  | \$                        |                                    |                    |                |                         |  |                        |  |
| APPROVED BY   |   |  |                           | DATE                               |                    |                |                         |  |                        |  |
|   |   |  |                           |                                    |                    |                |                         |  |                        |  |





## REQUEST FOR TAXPAYER IDENTIFICATION NUMBER

Estimated burden per response to comply with this mandatory collection request: 15 minutes. The information is required by NRC to process payments to contractors. Send comments regarding burden estimate to the Information Services Branch (T-6A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollects.Resource@nrc.gov](mailto:Infocollects.Resource@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0188), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

In accordance with the Debt Collection Improvement Act of 1996, you are required to provide your taxpayer identification number. This number may be used to make payments (refunds) or for purposes of collecting and reporting on any delinquent amounts arising out of your relationship with the Federal Government.

Please complete the applicable blocks and fax the completed form to (301) 415-6725. Thank you for your assistance and cooperation. If you have any questions, please contact us. Our telephone number is (301) 415-7554.

**Indicate the status of your business:**

☐ CORPORATION ☒ CITY/STATE GOVERNMENT ☐ OTHER (Specify in box below)  
☐ PARTNERSHIP ☐ FEDERAL GOVERNMENT ☐ INDIVIDUAL

**TAXPAYER IDENTIFICATION NUMBER**

**SOCIAL SECURITY NUMBER**

- -

OR

**EMPLOYER IDENTIFICATION NUMBER**

6 8 - 6 0 0 0 1 3 4

**NRC LICENSE OR  
REGISTRATION NUMBER(S)**

2 1 - 0 5 1 9 9 - 0 2

**Under penalties of perjury, I certify that the number shown on this form is my correct taxpayer identification number.**

**SIGNATURE - TAXPAYER REPRESENTATIVE**

*David Asselin*

**NRC LICENSEE OR VENDOR**

State of Michigan, Department of Environment, Great Lakes, and Energy

**BILLING ADDRESS**

State of Michigan/MMD/EGLE  
P.O. Box 30241  
Lansing, MI 48909

**BILLING TELEPHONE NUMBER**

(517) 614-9913

**BILLING EMAIL ADDRESS**

[asselind1@michigan.gov](mailto:asselind1@michigan.gov)

We respectfully request amendments to Material License 21-05199-02 as follows:

1. Amend Condition 11 to read:

The Radiation Safety Officer (RSO) for this license is Marcus Quinlan

The change of RSO from David Asselin to Marcus Quinlan is not in response to any incident, but as part of a reorganizational effort to better align responsibilities with current duties.

Mr. Quinlan holds a Bachelor of Science in Nuclear Engineering & Radiological Sciences from the University of Michigan, 2016.

Mr. Quinlan's responsibilities within the Radioactive Materials Unit include:

- Running the Radiological Protection Laboratory when the primary lab scientist is absent;
- Regulating Technologically Enhanced Naturally Occurring Radioactive Material (TENORM);
- Responding to tripped portal alarms at landfills and recycling centers;
- Performing radiological surveys of contaminated sites;
- Aiding in Emergency Response drills and exercises;
- Calibrating survey meters for other divisions within the Department of Environment, Great Lakes, and Energy; and
- Compiling the annual Low-Level Radioactive Waste Management Report (LLRW) for all LLRW generators in the State of Michigan.

Mr. Quinlan has received the following training:

- Annual Radiation Safety training as described in Appendix H in NUREG-1556, Vol. 18, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses,' dated November 2000
- Training from State of Michigan Authorized Users to operate the GC-60 with 150 mCi Cs-137, 10 Ci Cs-137, and 2.2 Ci Co-60 sources to calibrate survey equipment
- Training on developing and conducting Final Status Surveys for contaminated sites using the RESRAD family of codes and MARSSIM techniques.
- Various FEMA trainings including PER-316 "*REP Accident Assessment Concepts Course (RAAC)*," IS-00003 "*Radiological Emergency Management*," IS-00100.b "*Introduction to Incident Command System*," IS-00200.b "*ICS for Single Resource and Initial Action Incident*"
- Training from MIRION Technologies on the use of gamma spectroscopy software LABSOCS and APEX-Gamma
- Training in issuing DOT-SP 10656 for the one-way transportation of radioactive material in the event of a tripped portal alarm

As part of the transition, Mr. Quinlan has been required to perform the following:

- Conduct an audit of the Radiation Safety Program following the format of the annual review as required by 10 CFR 20.1101(c);
- Complete a full inventory of licensed, generally licensed, and exempt radioactive material and sources currently being kept by the Radiological Protection Section; and



- Attend a week-long Radiation Safety Officer Training offered by Oak Ridge Associated Universities in August 2019.

As RSO, Mr. Quinlan will be available for emergencies and can be on-site within 24-48 hours, if necessary.

A copy of an updated organization chart has been included as part of this enclosure to demonstrate that Mr. Quinlan has enough independence and direct communication with responsible management officials.

2. Amend Condition 12 to read:

Licensed material listed in Item 6 above is authorized for use by, or under the supervision of, the following individuals for the materials and uses indicated:

|                    |                                     |
|--------------------|-------------------------------------|
| Isreal O'Boyle     | Subitem 6.B.                        |
| David Asselin      | All                                 |
| Donald Parry       | Subitems 6.A., 6.D., 6.E., and 6.F. |
| Jeff Tavormina     | Subitems 6.A., 6.D., 6.E., and 6.F. |
| Theodore Wentworth | All                                 |
| Greg Gothard       | All                                 |
| Todd Trygier       | All                                 |
| David Skutt        | All                                 |
| Marcus Quinlan     | All                                 |
| Mike Neller        | All                                 |
| Nadir Chaudhry     | All                                 |
| Robert Fisher      | All                                 |

Addition of three Authorized Users:

Through the State of Michigan, Mr. Neller, Mr. Chaudhry, and Mr. Fisher have each received the training described in Appendix H in NUREG-1556, Vol. 18, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses,' dated November 2000.

Through experience, training, and supervised work assignments, Mr. Neller, Mr. Chaudhry, and Mr. Fisher have demonstrated that each understands the proper use of radioactive materials; recognizes the hazard associated with sources based on their physical form, activity, and isotope; and is able to safely use radioactive materials for their intended purposes across a full range of work assignments.

Additional information regarding Mr. Neller's, Mr. Chaudhry's, and Mr. Fisher's relevant education and experience are summarized in the next section.

Modification of one Authorized User:

Mr. Wentworth has previously been authorized to use all radionuclides for the authorized use and quantity but following a change in responsibilities, his scope of authorization was modified in 2015. He has recently been hired as manager of the Radioactive Materials Unit.

## Removal of one Authorized User

Mr. Skowronek has retired from the State of Michigan.

### 3. Within Enclosure 4, Procedure for Ordering Radioactive Material, Section 5 states:

"Isreal O'Boyle and Robert Skowronek of the Radioactive Materials Unit, Radiological Protection Section are authorized to order and/or acquire radioactive materials routinely used in the Radiological Protection Laboratory such as laboratory standards, materials from the U.S. Environmental Protection Agency's Environmental Radioactivity Laboratory Intercomparison Studies Program, etc. No more than 1 microcurie of each of the following radionuclides may be ordered in one month: H-3, Na-22, Mn-54, Co-57, Co-60, Ni-63, Zn-65, Zr-95, Sr-89, Sr-90, Ru-106, Cd-109, I-131, Ba-133, Cs-134, Cs-137, Eu-152, Ra-226, Ra-228, U-238, and Am-241."

We would like to amend this to say:

"Laboratory Scientists and the Radioactive Materials Unit Supervisor, if also Authorized Users, are authorized to order and/or acquire radioactive materials routinely used in the Radiological Protection Laboratory such as laboratory standards, materials from the U.S. Environmental Protection Agency's Environmental Radioactivity Laboratory Intercomparison Studies Program, etc. Non-alpha emitting radionuclides may be purchased in quantities not exceeding the exempt concentrations and quantities specified in 10 CFR 30.71 Schedule A and Schedule B, respectively. No more than 1 microcurie of each of the following alpha emitting radionuclides may be ordered in one month: Ra-226, Ra-228, U-238, and Am-241."

This generalizes each position's authorities within the Radiological Protection Section to ensure that future staffing changes do not require changes to this procedure. It also separates purchasable isotopes that would be exempt from any licensing and those that would be generally or specifically licensed.

### 4. Within Enclosure 4, Reporting Abnormal Events Involving Licensed Radioactive Material, the following Notification List is given:

| Notification List – Start at the top and work down in list order |               |                        |
|--|---------------|------------------------|
| Position   | Name          | Phone #                |
| RSO  | David Asselin | 517-614-9913           |
| RSO  | David Asselin | 810-813-6849           |
| RAM Unit Supervisor  | Bob Skowronek | 517-614-0882           |
| Acting RPS Manager   | David Asselin | 517-614-9913           |
|  |               |                        |
| RSO  | David Asselin | asselind1@michigan.gov |

We would like to amend this to say:

| Notification List – Start at the top and work down in list order |                |              |
|--|----------------|--------------|
| Position   | Name           | Phone #      |
| RSO  | Marcus Quinlan | 517-230-5940 |
| RSO  | Marcus Quinlan | 269-924-7059 |



|                     |                    |                       |
|---------------------|--------------------|-----------------------|
| RAM Unit Supervisor | Theodore Wentworth | 517-915-8881          |
| RPS Manager         | Michael Neller     | 517-512-5859          |
| REP Unit Supervisor | David Asselin      | 517-614-9913          |
|                     |                    |                       |
| RSO                 | Marcus Quinlan     | quinlanm@michigan.gov |

This accounts for the departure of Robert Skowronek, the hiring of Michael Neller and Theodore Wentworth, and the changing of RSO to Marcus Quinlan. Marked up and clean versions of the amended document are included with this enclosure.

5. Within Enclosure 5 of the license renewal, Item 9 contains the statement "All 3 doors in the diagram are closed and locked when not under the direct supervision of an Authorized User. Non-authorized users are not given access to door keys or pass codes". We would like to clarify that as follows:

With prior approval from the Radiation Safety Officer or the Radiological Protection Section's manager, ancillary personnel may be given access to the Equipment Room, which contains no licensable radioactive material, without requiring direct supervision by an authorized user. Non-authorized users will not be given access to the Radioactive Material Storage Room nor the Calibration Room under any circumstances without direct supervision by an authorized user.

6. In several of the enclosures to the license, mentions to the Department of Environmental Quality (DEQ) and Waste Management Radiological Protection Division (WMRPD) are made. As an administrative change, we would like to change the Departmental name to the Department of Environment, Great Lakes, and Energy (EGLE) and Materials Management Division (MMD).

| Mike Neller – Relevant education and experience |   |
|---|---|
| Relevant Radioactive Materials Experience       | <p>Mr. Neller has extensive experience with the following:</p> <ul style="list-style-type: none"> <li>- Instrument Check Sources</li> <li>- Special Nuclear Material</li> <li>- Nuclear Reactor Byproduct Material and Waste</li> </ul>   |
| Education                                       | <p>B.S. International Security Affairs, General Engineering Core Curriculum<br/>United States Naval Academy, 1979</p> <p>Certified Nuclear Engineer Officer (Director Naval Reactors)/Plant Engineer, 1984</p> <p>Senior Reactor Operator of Navy Nuclear Power Plants, 1995-2004</p>   |
| Relevant Professional Experience                | <p><u>Supervisor of Nuclear Power Plant Operations, U.S. Navy, 1981 - 1996</u><br/>As an Engineering Officer, Mr. Neller's duties included adherence to reactor safety principles, radiation safety principles, and the handling of nuclear waste.</p> <p><u>Nuclear Weapons Handling Supervisor and Nuclear Safety Officer, U.S. Navy, 1982 - 1989</u><br/>Mr. Neller was responsible for the handling (e.g., shipping, movement, arming operations) of nuclear weapons and emergency response operations. Managed and audited nuclear safety programs to include the radiation health program and personnel reliability program.</p> <p><u>Radiation Health Officer, U.S. Navy, 1991 - 1993</u><br/>Mr. Neller was responsible for the monitoring and proper documentation of exposure records for 165 radiation workers.</p> <p><u>Commanding Officer of Nuclear-Powered Ballistic Missile Submarine, U.S. Navy, 1996 - 1998</u><br/>Mr. Neller was responsible for nuclear power plant and nuclear weapons safety in accordance with federal regulations.</p> <p><u>Quality Assurance Chief Inspector and Auditor, U.S. Navy, 2002 - 2004</u><br/>Nuclear Power Plant Operator Certification programs of 10 separate power plants meeting federal safety regulations.</p> <p><u>Section Manager, State of Michigan, 2018 – present</u><br/>Mr. Neller oversees all operations of the Radiological Protection Section including the Radioactive Materials Unit and the Radiological Emergency Preparedness Unit.</p> |



| Nadir Chaudhry – Relevant education and experience |   |
|--|---|
| Relevant Radioactive Materials Experience          | <p>Cs-137 (<b>CH</b>: 1 <math>\mu</math>Ci - 5 <math>\mu</math>Ci, <b>CA</b>: 150 mCi, 10 Ci)<br/> Tc-99: (<b>CH</b>: 5.82 nCi)<br/> Co-60 (<b>CA</b>: 2.2 Ci)</p> <p><u>C</u>heck source<br/> <u>C</u>alibration source</p>  |
| Education  | <p>B.S.A. Physics &amp; Anthropology<br/> McGill University, 2015</p>   |
| Relevant Professional Experience                   | <p><u>Physicist, State of Michigan, 2017 - present</u><br/> Mr. Chaudhry has been trained and has experience in using and calibrating radiation detection equipment which involves the use of high activity calibration sources and smaller activity check sources. Mr. Chaudhry is also well versed in the contamination control methods used by the Radiological Emergency Preparedness Unit in the event of nuclear power plant emergency.</p> |

| Robert Fisher – Relevant education and experience |   |
|---|---|
| Relevant Radioactive Materials Experience         | <p>Cs-137 (<b>CH</b>: 1 <math>\mu</math>Ci - 5 <math>\mu</math>Ci, <b>CA</b>: 150 mCi, 10 Ci)<br/> Tc-99: (<b>CH</b>: 5.82 nCi)<br/> Co-60 (<b>CA</b>: 2.2 Ci)</p> <p><u>C</u>heck source<br/> <u>C</u>alibration source</p>  |
| Education   | <p>B.S. Physics<br/> Texas A&amp;M University - Kingsville, 2013<br/> M.S. Physics<br/> Texas Tech University, 2016</p>   |
| Relevant Professional Experience                  | <p><u>Physicist, State of Michigan, 2017 - present</u><br/> Mr. Fisher has been trained and has experience in using and calibrating radiation detection equipment which involves the use of high activity calibration sources and smaller activity check sources. Mr. Fisher's responsibilities also include responding to radiological disasters and field operations.</p> |

| Theodore Wentworth – Relevant education and experience |   |
|--|---|
| Relevant Radioactive Materials Experience              | <p>Cs-137 (<b>CH</b>: 1 <math>\mu</math>Ci - 5 <math>\mu</math>Ci, <b>CA</b>: 150 mCi, 10 Ci)<br/> Technologically Enhanced Naturally Occurring Radioactive Material (TENORM)</p> <p><u>C</u>heck source<br/> <u>C</u>alibration source</p>   |
| Education  | <p>B.S. Physics<br/> Michigan State University, 1993</p>  |
| Relevant Professional Experience                       | <p><u>Physicist, State of Michigan, 2001 – present</u></p> <p>Mr. Wentworth has extensive experience as an inspector of x-ray equipment and state-regulated radioactive materials. Mr. Wentworth has completed numerous training sessions in radiological emergency response, radiological incident response, US NRC licensing and inspection, radioactive material transportation, and other related topics. Additionally, Mr. Wentworth has experience in radiological surveying NORM-contaminated sites and decommissioning US NRC facilities.</p> |



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
MATERIALS MANAGEMENT DIVISION  
Radiological Protection Section

Procedure for Ordering Radioactive Material

1. The Radiation Safety Officer (RSO) has the overall responsibility for placing all orders for radioactive materials. The RSO will ensure that the requested materials and quantities are authorized by the license and that possession limits are not exceeded.
2. Requests to order radioactive material shall be made in writing to the RSO. The request shall specify the radionuclide, compound, activity, supplier, etc. and the reason for the order. A returned copy of the request signed and dated by the RSO will authorize purchase.
3. Approval for ordering the radioactive material shall be obtained before initiating the purchasing process. All other applicable requirements relating to non-radiological aspects of ordering or purchasing materials shall be complied with separately.
4. The RSO may authorize individuals to order routinely-used materials such as laboratory standards, etc. The memorandum shall specify the designated individual, the radionuclides, the maximum activity per radionuclide that the individual is authorized to order per month, or any other restrictions deemed necessary. The RSO shall be notified when material is ordered and when material is received.

Laboratory Scientists and the Radioactive Materials Unit Supervisor, if also Authorized Users, are authorized to order and/or acquire radioactive materials routinely used in the Radiological Protection Laboratory such as laboratory standards, materials from the U.S. Environmental Protection Agency's Environmental Radioactivity Laboratory Intercomparison Studies Program, etc. Non-alpha emitting radionuclides may be purchased in quantities not exceeding the exempt concentrations and quantities specified in 10 CFR 30.71 Schedule A and Schedule B, respectively. No more than 1 microcurie of each of the following alpha emitting radionuclides may be ordered in one month: Ra-226, Ra-228, U-238, and Am-241.

## **Reporting of Abnormal Events Involving Licensed Radioactive Material**

This procedure provides a process for the reporting of abnormal events involving licensed radioactive materials (RAM).

An "abnormal event" is considered to be anything out of the ordinary that may challenge the secure storage or safe use of RAM.

Examples of abnormal events include, but are not limited to:

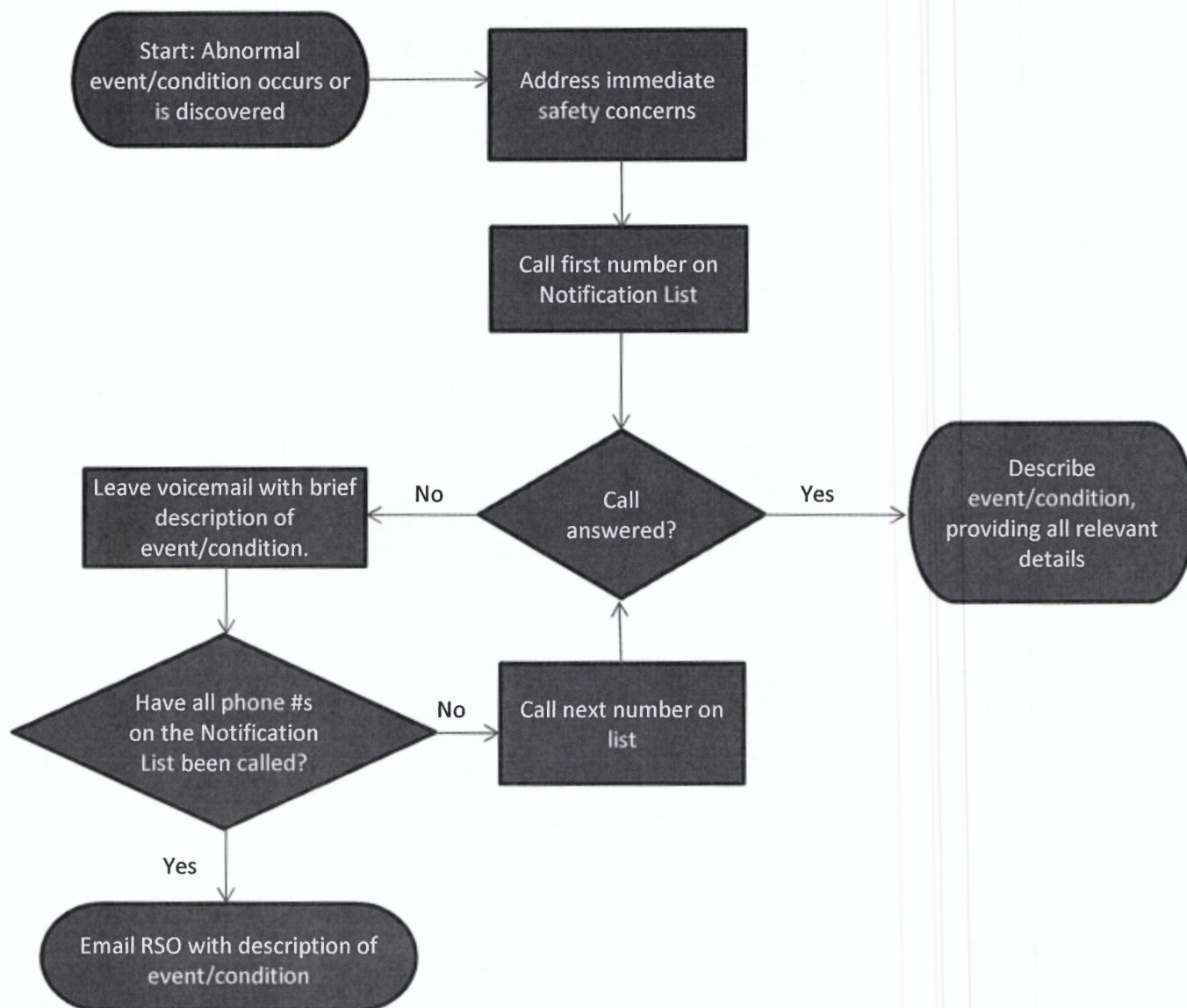
- Missing or damaged RAM
- Missing, damaged, or malfunctioning shielding or other safety equipment (e.g., storage containers, area monitors, powered or unpowered warning signs, door interlocks, etc.)
- Unauthorized access to or use of RAM
- Doors to controlled areas which have been found to be unlocked or open without an Authorized User present to maintain continuous control over the area
- Suspected or actual over-exposures to radiation
- Injuries caused by or complicated by the presence of RAM (e.g., trip and fall in RAM Storage room)
- Discovery of surface contamination on work surfaces
- Loss of documents containing license-specific security related information (e.g., information on security measures protecting sources, activity and type of sources, location of keys or access codes, etc.)
- Any other suspicious activities or occurrences involving RAM

Procedure:

| Who                                    | Does What  |
|--|--|
| Authorized User                        | 1. Deal with any immediate safety concerns. Applicable actions may include: <ul style="list-style-type: none"><li>a. Shield any unshielded sources</li><li>b. Deal with critical medical needs</li><li>c. Evacuate or secure areas of elevated radiation</li></ul>   |
|  | 2. Regardless the actual or perceived severity or significance of the event, the Radiation Safety Officer (RSO), or approved alternate, shall be notified via telephone as soon as possible after the discovery of the event. (Refer to Notification Flow Diagram [page 2])  |
| Notified Individual (RSO or alternate) | 1. Receive notification and determine significance of the event.   |
|  | 2. Render immediate assistance, if needed.   |
| RSO                                    | 1. Investigate the abnormal event. The investigation may include: <ul style="list-style-type: none"><li>a. Interview persons with knowledge of the event</li><li>b. Conduct radiological surveys to reconstruct what happened and estimate possible doses to workers</li><li>c. Attempt to determine root cause of event</li></ul>   |
|  | 2. Make any required notifications to the US Nuclear Regulatory Commission and other applicable agencies. Observe reporting deadlines and criteria. See: <u>Reporting Requirements</u> ( <a href="https://www.nrc.gov/about-nrc/emerg-preparedness/faq/reporting-requirements.html">https://www.nrc.gov/about-nrc/emerg-preparedness/faq/reporting-requirements.html</a> ) |
|  | 3. Write a report to document the event, include analysis of event and corrective actions to prevent recurrence.   |
|  | 4. Implement corrective actions and document their completion.   |



## Notification Flow Diagram



| Notification List – Start at the top and work down in list order |                    |                       |
|--|--------------------|-----------------------|
| Position   | Name               | Phone #               |
| RSO  | Marcus Quinlan     | 517-230-5940          |
| RSO  | Marcus Quinlan     | 269-924-7059          |
| RAM Unit Supervisor  | Theodore Wentworth | 517-915-8881          |
| RPS Manager  | Michael Neller     | 517-512-5859          |
| REP Unit Supervisor  | David Asselin      | 517-614-9913          |
|  |                    |                       |
| RSO  | Marcus Quinlan     | quinlanm@michigan.gov |



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

## MATERIALS MANAGEMENT DIVISION

### Jack Schinderle, Director

State Bureau Adm 18

Kristine Lauckner, Executive Secretary 10

### Administration Section\*

Kathy Tetzlaff, SAM 15

Kelsea Cole, DA 12

Mark Costigan, FA 12

### Finance Unit

Kirsten Gasper, DM 14

Chris Campbell, FS 13

Sherri Dunfield, DT 10

Justin Kennedy, DA 12

Vacant, Procurement Tech

Elizabeth Browne, Interim Assistant Division Director  
State Division Adm 17

Matt Flechter, EQS 14

Lonnie Lee, SAM 15 – see Page 2

### Enforcement Section\*\*

Alexandra Clark, SAM 15

Melinda Shine, EQA 12

Pat Turbett, Sec 9

David Willard, EQA 11

Scott Zajac, EQA 9

### Sustainability Section

#### Energy

Robert Jackson, SDA 17

David Herb, EE Spl 13

Jan Patrick, DA

Terri Novak, SAM 15

Erin Keller, Student

Julie Staveland, DA 12

Lisa Thomas, Eng 9

Vacant, DS 13

Jake Wilkinson, Eng 12

#### Pollution Prevention and Stewardship

Chad Rogers, Env Mgr 14

Devan Dodge, EQA P11

Irene Queen, EQA 9

Debbie Swartz, EQS 13

Vacant, EQS 13 (Rogers)

Vacant, Engineer 12 (MAE)

Vacant, EQA 12 (Hude)

#### Recycling Unit

Elizabeth Garver, EQS 13

Emily Freeman, EQS 13

Katie Venechuk, EQS 13

Brian Burke, EQS 13

### Hazardous Waste Section

Al Taylor, SAM 15

Nicole Florence, Sec 9

Xuede (Dan) Qian, EE Spl 13

Joseph Victory, Geo Spl 13

#### Permit and Corrective Action Unit

Virginia Himich, Env Mgr 14

Andrew Bertapelle, EE 10

Dale Bridgford, Geo Spl 13

Dan Dailey, EE Spl 13

Nathan Erber, Geo 11

Christine Matlock, EE 12

John McCabe, EQA 12

Art Ostaszewski, EQS 13

Joe Rogers, Geo Spl 13

Nicole Sanabria, Geo 10

Clay Spencer, EQA 12

Vacant, Geo 12 (Victory)

Vacant, EQS 13 (Himich)

Vacant, Tox 12, (Kellock)

Vacant, Sec 8 (Florence)

#### Management and Tracking Unit

Rich Conforti, Env Mgr 14

Julie Blanchard, DA 12

Ronda Blayer, EE Spl 13

James Ferritto, EQS 13 (Cadillac)

Jacob Runge, EE 9

Kimberly Tyson, EE Spl 13

Jack LaPeer, SEEP

Cecilia Ludwick, SEEP

Jane Wysack, SEEP

### Solid Waste Section

Rhonda Oyer, SAM 15

Jim Arduin, Geo Spl 13

Katriena Guilmette, EQA 9

Sueann Murphy, Sec 9

Margie Ring, EE Spl 13

Andrew Shannon, EQS 13 (GR)

#### Sustainable Materials Management Unit

Jeff Spencer, Env Mgr 14

Kirsten Clemens, EQS 13 (Saginaw)

Paige Filice, EQA 9

Aaron Hiday, EQA 11

Amy Lafferty, EQA 11

Fedora Love, GOA 6

Christina Miller, EQ Spl 13

Carlie Money, EQA 9

Steven Noble, EQS 13

Duane Roskoskey, EE Spl 13

Michelle White, DT 10

### Radiological Protection Section

Mike Neller, SAM 15

Jennifer Keyes, Sec 8

#### Radioactive Materials Unit

T.R. Wentworth, Phys Mgr 14

Aaron Berndt, EQS 13

Isreal O'Boyle, Lab Scient 12

Marcus Quinlan, Phys 11

Allen Frank, SPS

David Jaskot, SPS

#### Radiological Emergency Preparedness Unit

David Asselin, Phys Mgr 14

Nadir Chaudhry, Phys 10

Robert Fisher, Phys 10

Greg Gothard, Phys 12

David Skutt, Phys 12

Todd Trygier, Phys Spl 13

#### Low-Level Radioactive Waste Authority

\*Administration Section reports to  
Oil, Gas, and Minerals Division

\*\*Enforcement Section also supports  
Drinking Water & Environmental Health Division





GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING



LIESL EICHLER CLARK  
DIRECTOR

TO: Marcus Quinlan, Physicist  
Radiological Protection Section

FROM: Mike Neller, Manager  
Radiological Protection Section

DATE: June 7, 2019

SUBJECT: Delegation of Authority to Radiation Safety Officer

Per the Code of Federal Regulations (CFR) 10 CFR 30.33(a)(3), 10 CFR 40.32(b), 10 CFR 70.22(a)(6) (as referenced in the attached page of guidance from NUREG 1556 Vol. 18 Rev 1, "Consolidated Guidance about Materials Licenses, Program-Specific Guidance About Service Provider Licenses"), Marcus Quinlan is appointed Radiation Safety Officer on NRC License No. 21-05199-02 and is responsible for ensuring the safe and secure use of radioactive materials.

He is responsible for the following:


- Managing the Radiation Protection Program;
- Identifying radiation protection problems;
- Initiating, recommending, or providing corrective actions;
- Verifying the implementation of corrective actions;
- Stopping unsafe activities; and
- Ensuring compliance with regulations.

Marcus is 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. He is required to notify management if staff does not cooperate and does not address radiation safety issues. In addition, he is free to raise issues with the United States Nuclear Regulatory Commission at any time. It is estimated that he will spend four hours per week, on average, conducting radiation protection activities.

  
Mike Neller, Manager

6/7/2019  
Date

I accept the above responsibilities,

  
Marcus Quinlan, Physicist

6-7-2019  
Date

Attachment

**EGLE**

RADIOLOGICAL PROTECTION SECTION  
MATERIALS MANAGEMENT DIVISION  
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES,  
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