

DTE Energy Company
Fermi 2 Power Plant , 110 AIB
6400 North Dixie Highway
Newport, MI 48166



November 20, 2013

Materials Licensing Branch
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Subject: Application For Renewal of Materials License 21-02335-08

Dear Sir or Madam:

Please find enclosed a completed NRC Form 313 for renewal of Materials License 21-02335-08. This materials license is for DTE Energy's Warren Service Center located in Detroit, Michigan. Enclosed you will also find completed NUREG-1556, Vol. 1, Appendix B.

In this application, DTE Energy also requests modification to license condition 15 E to allow leak testing analysis to be performed by DTE Energy personnel at the Fermi 2 Nuclear Power Plant as is provided in other material licenses maintained by DTE Energy.

DTE Energy has established an electronic fund transfer account with the US Treasury for payments to the NRC. For this reason, DTE Energy requests to be invoiced for Item 12 of Form 313.

If you have any questions or require additional information, please contact me at 734-586-5146.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert J. Tozzie".

Robert J. Tozzie, RSO
Radiation Protection Specialist

RECEIVED NOV 26 2013

(03-2013)
10 CFR 30, 32, 33,
34, 35, 36, 39, and 40



**APPLICATION FOR MATERIALS
LICENSE**

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-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, 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.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW. *AMENDMENTS/RENEWALS THAT INCREASE THE SCOPE OF THE EXISTING LICENSE TO A NEW OR HIGHER FEE CATEGORY WILL REQUIRE A FEE.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,

SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PA 19406-2713

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN,
SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING,

SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
1600 E. LAMAR BOULEVARD
ARLINGTON, TX 76011-4511

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.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- A. NEW LICENSE
- B. AMENDMENT TO LICENSE NUMBER
- C. RENEWAL OF LICENSE NUMBER 21-02335-08

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

Robert J. Tozzie
EF2 110 AIB
6400 North Dixie Highway
Newport, MI 48166

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Warren Service Center
6100 West Warren Avenue
Detroit, Michigan 48210

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Robert J. Tozzie

BUSINESS TELEPHONE NUMBER
(734) 586-5146

BUSINESS CELLULAR TELEPHONE NUMBER

BUSINESS EMAIL ADDRESS
tozzier@dteenergy.com

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.

5. RADIOACTIVE MATERIAL

- a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES (Fees required only for new applications, with few exceptions*)
(See 10 CFR 170 and Section 170.31)

FEE CATEGORY **3P** AMOUNT ENCLOSED \$ **0.00**

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

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, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

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.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Richard S. LaBurn - Manager Radiation Protection

SIGNATURE

DATE

11/25/13

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

NUREG-1556, Vol. 1, Appendix B

Suggested Format for Providing Information Requested in Items 5 Through 11 of NRC Form 313

Regarding DTE Energy application for renewal of
license number 21-02335-08

Suggested Format for Providing Information Requested in Items 5 Through 11 of NRC Form 313

Items 5 & 6: Materials To Be Possessed and Proposed Uses

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
X		Cesium-137	Sealed source manufacturer or distributor and model number: Device manufacturer or distributor and model number: <i>Troxler Model 3400 Series</i>	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes [X] Specific description of the gauge use: <i>Measurement of physical properties of materials.</i> <i>Surface moisture/density measurements</i>	[X] Not applicable [] Uses are: (Submit safety analysis supporting safe use)
X		Americium - 241	Sealed source manufacturer or distributor and model number: Device manufacturer or distributor and model number: <i>Troxler Model 3400 Series</i> <i>Troxler Model 3216</i>	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes [X] Specific description of the gauge use: <i>Measurement of physical properties of materials.</i> <i>Surface moisture/density measurements and moisture measurements</i>	[X] Not applicable [] Uses are: (Submit safety analysis supporting safe use)

APPENDIX B

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
	X	Californium -252	Sealed source manufacturer or distributor and model number: Device manufacturer or distributor and model number:	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes <input type="checkbox"/> Specific description of the gauge use:	<input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
	X	Other Isotope (Specify):	Sealed source manufacturer or distributor and model number: Device manufacturer or distributor and model number:	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes <input type="checkbox"/> Specific description of the gauge use:	<input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
<i>Financial Assurance Required and Evidence of Financial Assurance Provided</i>						

Items 7 through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal

Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
7. Individual(s) Responsible For Radiation Safety Program And Their Training And Experience – Radiation Safety Officer Name: Robert J. Tozzie	Before obtaining licensed materials, the proposed RSO will have successfully completed one of the training courses described in Criteria in the section entitled “Individual(s) Responsible for Radiation Safety Program and Their Training and Experience - Radiation Safety Officer” in NUREG-1556, Vol. 1, Rev. 1 dated November 2001.	[X]	[]
8. Training For Individuals Working In or Frequenting	Before using licensed materials, authorized users will have successfully completed one of the training courses described in Criteria in the section entitled, “Training for	[X]	[]
9. Facilities and Equipment	No Information needs to be submitted in response to this item; key issues are addressed under “Radiation Safety Program – Public Dose” and “Radiation Safety Program – Operating and Emergency Procedures.”	Need Not Be Submitted with Application	
10. Radiation Safety Program - Audit Program	The applicant is <i>not</i> required to, and should not, submit its audit program to the NRC for review during the licensing phase.	Need Not Be Submitted with Application	
10. Radiation Safety Program – Termination of Activities	The applicant is <i>not</i> required to submit a response to the termination of activities section during the initial application. However, when the license expires when the licensee ceases operation, NRC Form 314 must be submitted.	Need Not Be Submitted with Application	
10. Radiation Safety Program – Survey Instruments	We will either possess and use, or have access to and use, a radiation survey meter that meets the Criteria in the section entitled “Radiation Safety Program – Instruments” in NUREG-1556 Vol. 1, Rev. 1, dated November 2001.	[X]	[]

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Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
10. Radiation Safety Program - Material Receipt and Accountability	Physical inventories will be conducted at intervals not to exceed 6 months to account for all sealed sources and devices received and possessed under the license.	[X]	[]
10. Radiation Safety Program - Occupational Dosimetry	Either we will maintain, for inspection by NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10 percent of the allowable limits in 10 CFR Part 20, or we will provide dosimetry processed and evaluated by an NVLAP-approved processor that is exchanged at a frequency recommended by the processor.	[X]	[]
10. Radiation Safety Program – Public Dose	The applicant is <i>not</i> required to submit a response to the public dose section during the licensing phase. This matter will be examined during an inspection.	Need Not Be Submitted with Application	
10. Radiation Safety Program - Operating & Emergency Procedures	Operating and emergency procedures will be developed, implemented, and maintained and will meet the criteria in the section entitled "Radiation Safety Program – Operating and Emergency Procedures" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.	[X]	[]
10. Radiation Safety Program - Leak Test	<p>We will implement the model leak test program published in Appendix J NUREG-1556, Vol. 1, Rev. 1, dated November 2001.</p> <p><i>Leak test samples will be normally analyzed by DTE Energy's Fermi 2 Nuclear Power Plant under license NPF-43. However, samples may be analyzed by an organization authorized by NRC or an Agreement State to provide leak testing services to other licensees.</i></p>	[X]	<p>[X]</p> <p>The information in Appendix J supporting a request to perform leak testing and sample analysis is attached.</p>

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Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
10. Radiation Safety Program - Maintenance	<p><i>Routine Cleaning and Lubrication</i> We will implement and maintain procedures for routine maintenance of our fixed gauges according to each manufacturer's recommendations and instructions.</p> <p><i>Non-Routine Maintenance</i> We will send the gauge to the manufacturer or other person authorized by the NRC or an Agreement State to perform non-routine maintenance or repair operations that require the removal of the source or source rod from the gauge.</p>	<p>[X]</p> <p>[X]</p>	<p>[]</p> <p>[]</p> <p>The information listed in Appendix G supporting a request to perform non-routine maintenance in-house is attached.</p>
10. Radiation Safety Program - Transportation	The applicant is <i>not</i> required to submit its response to transportation during the licensing process. However, this issue will be reviewed during inspection.	Need Not Be Submitted with Application	
11. Waste Management - Gauge Disposal & Transfer	The applicant is not required to submit a response to waste management during the licensing process. However, the licensee should develop, implement, and maintain gauge transfer and disposal procedures in its radiation protection program.	Need Not Be Submitted with Application	

Addendum to NUREG 1556, Vol 1, Appendix B

Item 10, Radiation Safety Program - Leak Test
Request to perform leak testing sample analysis

The following text is information requested in Appendix J

Training

- Personnel who operate counting instruments at Fermi 2 are trained and qualified to INPO (Institute of Nuclear Power Operators) accredited standards and meet all applicable ANSI (American National Standards Institute) standards. These personnel are provided formal classroom training which includes principles and practices of radiation protection, radioactivity measurements, monitoring techniques, use of instruments, mathematics and calculations basis to the use and measurement of radioactivity and biological effects of radiation. Personnel receive on-the-job training for operating counting instruments and must successfully pass observed task performance evaluations.

Facilities and Equipment

- Fermi 2 maintains (calibrates) and operates counting instruments that are capable of detecting 185 Bq of a wide range of radionuclides including those contained in the Troxler moisture and density gauges used by DTE Energy (Cs-137 and Am-241).
- Counting instruments include gas flow automatic low
 - Automatic Low Background Alpha/Beta Counting systems
 - Gamma Spectroscopy systems
 - Liquid Scintillation systems
- Fermi 2 counting instruments are located in low-background areas.
- Fermi 2 counting instruments are source checked daily, prior to use, using standard sources of the same radionuclide or one with similar characteristics as the source being tested to ensure proper operation. Fermi 2 reference sources are traceable to standards maintained by the National Institutes of Standards and Technology (NIST). Daily use checks include performance of background measurements.
- Fermi maintains and operates these instruments in accordance with written procedures in accordance with applicable industry standards that meet regulatory requirements as required by the Fermi 2 operating license NPF-43 (Docket 50-341).
- Personnel who operate counting instruments at Fermi 2 are trained and qualified to INPO accredited standards and meet all applicable ANSI standards. These personnel are provided formal classroom training which includes principles and practices of radiation protection, radioactivity measurements, monitoring techniques, use of instruments, mathematics and calculations basis to the use and measurement of radioactivity and biological effects of radiation. Personnel receive on-the-job training for operating counting instruments and must successfully pass observed task performance evaluations.

From: (734) 586-5146
 Robert Tozzie
 DTE Energy
 6400 N. Dixie Highway

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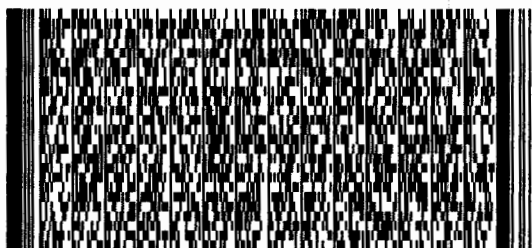
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US Nuclear Regulatory Commission
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Lisle, IL 60532

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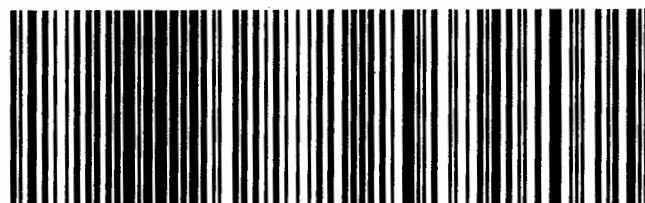
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