DTE Energy Company Fermi 2 Power Plant, 100 AIB 6400 North Dixie Highway Newport, MI 48166



April 10, 2012

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

# Subject: Application For Amendment To Material License 21-02335-06

Dear Mr. Tran,

Please find enclosed a completed NRC Form 313 for an amendment to Material License (21-02335-06) for DTE Energy's Trenton Channel Power Plant located in Trenton, Michigan. This License amendment is for Item 10 "Radiation Safety Program", to evaluate personnel dose monitoring.

If you have any questions or require additional information, please contact me at 734-586-1697.

Sincerely,

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Thomas M. Lashley Radiation Safety Officer

NRC FORM 313 (1-2012) 10 CFR 30, 32, 33, 34, 35, 36, 39, and 40 APPLICATION FOR MATERIALS LICENSE	APPROVED BY OMB: NO. 3150-0120 EXPIRES: (03/31/2012) 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.	
APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:	IF YOU ARE LOCATED IN:
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:	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
IF YOU ARE LOCATED IN:	LISLE, IL 60532-4352
ALBAMA, 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,	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:	SEND APPLICATIONS TO:
LICENSING ASSISTANCE TEAM DIVISION OF NUCLEAR MATERIALS SAFETY U.S. NUCLEAR REGULATORY COMMISSION, REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415	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)	2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)
A. NEW LICENSE	DTE Energy, ) Fermi-2 Nuclear Power Plant
B. AMENDMENT TO LICENSE NUMBER 21-02335-06	One Energy ) 6400 North Dixie Highway Detroit, MI 48226 ) 110 AIB
C. RENEWAL OF LICENSE NUMBER	) Newport, MI 48166
3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED	4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION
Trenton Channel Power Plant	Thomas M. Lashley
4695 West Jefferson Ave	TELEPHONE NUMBER
Trenton, Michigan	(734) 586-1697
SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMAT ION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.	
<ol> <li>RADIOACTIVE MATERIAL         <ul> <li>a. Element and mass number; b. chemical and/or physical form; and c. maiximum amount</li> </ul> </li> </ol>	6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.
which will be possessed at any one time.	
<ol> <li>INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.</li> </ol>	8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.
9. FACILITIES AND EQUIPMENT.	10. RADIATION SAFETY PROGRAM.
11. WASTE MANAGEMENT.	12. LICENSE FEES (See 10 CFR 170 and Section 170.31) FEE CATEGORY AMOUNT FEE CATEGORY
PEE CATEGORY ENCLOSED *  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 CONTANED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDCE AND BELIEF. WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A C RIMINAL 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 4/11/12	
APPROVED BY DATE	
NRC FORM 313 (1-2012)	

## ITEM 10: RADIATION SAFETY PROGRAM

## OCCUPATIONAL DOSE:

We will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20 or we will provide dosimetry that meets the Criteria in the section entitled "Radiation Safety Program - Occupational Dosimetry" in NUREG-1556, Vol. 4, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Fixed Gauge Licenses," dated October 1998.

## **Personnel Monitoring**

Dosimetry is not normally issued to Trenton Channel Power Plant personnel. The routine activities described in this license are performed infrequently. Personnel authorized to perform these activities use calibrated survey meters to monitor exposure rate.

The following evaluation demonstrates that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20

There are three routine activities performed by Authorized Users that required exposure to radiation. The first activity is to open and close shutters. The second is surveying after opening and closing shutters. The third is performing a leak test every 36 months. Each activity is evaluated separately below.

Assumptions and measurements:

- Radiation readings were obtained by surveying a 100 mCi Texas Nuclear devise.
- Contact reading at shutter mechanism (40 millirems /hr).
- (2 millirems /hr) at 30cm from gauge.
- 2 minutes to open or close a shutter.
- 5 minutes to perform a survey.
- 2 minutes to take a leak test wipe.
- (1) Open or close shutter = 2 min x 40 millirems /hr = 1.33 millirems SDE (extremities)
- (2) Survey gauge = 5 min x 2 millirems /hr = 0.16 millirems TEDE (whole body)
- (3) Leak test = 2 min x 40 millirems /hr = 1.33 millirems SDE (extremities)

The applicable TEDE (whole body) limit is 5,0000 millirems per year and 10% of that value is 500 millirems per year. Activity (2) delivers 0.16 millirems, then an individual could perform 3,125 of these procedures each year and remain within 10% of the applicable limit.

The applicable shallow-dose equivalent (SDE) (extremities) is 50,000 millirems per year and 10% of that value is 5,000 per year. If activity (1) or (3) delivers 1.33 millirems then an individual could perform 3,759 of these procedures each year and remain within 10% of the applicable limit.

Based on the above situation, no dosimetry is required if a worker performs fewer than 3,125 routine maintenance procedures per year.

As such, DTE Energy requests that this license not be conditioned to require personnel monitoring of Authorized Users



#### After printing this label:

- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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