

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



April 5, 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 21-32707-01

Dear Sir or Madam:

Please find enclosed a completed NRC Form 313 for an amendment to Material License (21-32707-01) for Detroit Edison's Monroe Power Plant located in Monroe, Michigan. This License amendment is for an additional two Ohmart Model SH-F1A, devices used for slurry density measurements, for a total of four (4) devices. Additionally, Item 9 is amended to require the operating authority to provide permanent access to the gauges; Item 10 is amended to evaluate personnel dose monitoring and clarification of shutter check procedures.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas M. Lashley", written in a cursive style.

Thomas M. Lashley
Radiation Safety Officer

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NRC FORM 313

U.S. NUCLEAR REGULATORY COMMISSION

(1-2012)

10 CFR 30, 32, 33,
34, 35, 36, 39, and 40

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.

APPLICATION FOR MATERIALS LICENSE

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:

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
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

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

21-32707-01

☐

C. RENEWAL OF LICENSE NUMBER

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

Detroit Edison Company
EF2 110 AIB
6400 North Dixie Highway
Newport, MI 48166

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Monroe Power Plant
East Front Street
Monroe Michigan

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Thomas M. Lashley

TELEPHONE NUMBER

(734) 586-1697

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 (See 10 CFR 170 and Section 170.31)

FEE CATEGORY N/A

AMOUNT
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.

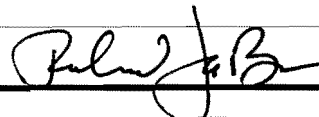
THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND 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 LaBuen Mgr - Radiation Protection

SIGNATURE



DATE

4/11/12

FOR NRC USE ONLY

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

ITEMS 5, 9, and 10 OF NRC FORM 313

ITEM 5: MATERIALS TO BE POSSESSED

Radioisotope

- Cesium 137

Sealed Source

- Ohmart Model A-2102

Devices

- Ohmart Model SH-F1A

Quantity

- Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate. (4) 20 mCi (0.74 GBq) sealed sources.

ITEM 9: FACILITIES AND EQUIPMENT

We will ensure that the location of each fixed gauge meets the criteria in the section entitled 'Facilities and Equipment' in NUREG-1556, Vol. 4, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Fixed Gauge Licenses,' dated October 1998.

The Operating Authority will provide a permanent access platform and ladder to each fixed gauge for testing and maintenance.

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.

Evaluation:

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

Assumptions and measurements:

- Based on values listed in the Sealed Source and Device (SSD) Registration Certificate.
- Contact reading at shutter mechanism (31 millirems/hr).
- (3.4 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 31 millirems/hr = 1.03 millirems SDE (extremities)

(2) Survey gauge = 5 min x 3.4 millirems/hr = 0.28 millirems TEDE (whole body)

(3) Leak test = 2 min x 31 millirems/hr = 1.03 millirems SDE (extremities)

The applicable TEDE (whole body) limit 5 rems per year and 10% of that value is 500 millirems per year. Activity (2) delivers 0.28 millirems, then an individual could perform 1,785 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 millirems per year. If activity (1) or (3) delivers 1.03 millirems then an individual could perform 4,854 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 1,785 routine maintenance procedures per year. As such, DTE Energy requests that this license not be conditioned to require personnel monitoring of Authorized Users

Shutter Checks:

In lieu of periodic nuclear gauge shutter tests, DTE Energy requests authority to confirm proper operation each time a shutter is operated.

1. Proper operation is confirmed with either a hand held survey meter or through the control and alarm system the nuclear gauge sensor electronics is connected to.
2. When using the nuclear gauge sensor electronics and the control and alarm system to verify proper shutter operation, the following indications are expected:

- OPEN SHUTTER - The radiation beam traverses the process pipe and is measured by the nuclear gauge sensor electronics to indicate the process fluid is within the normal operating range for the process.
- CLOSED SHUTTER - The radiation beam is blocked, the nuclear gauge sensor electronics process measured value drops low out of the normal operating range, and the system alarms on the low out of range value.

Proper operation is confirmed by opening and closing the shutter and verifying the system indicates as expected. Anything other than expected means that the gauge sensor electronics or the radiation source shutter are not operating properly, and the cause will be determined.

From: (734) 586-1697
 Thomas Lashley
 DTE Energy
 6400 N. Dixie Highway

Origin ID: NFBA



Newport, MI 48166

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 CAD: 5278791/NET3250

Delivery Address Bar Code



SHIP TO: (734) 586-1697

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Materials Licensing Branch
US Nuclear Regulatory Commission
2443 Warrenville Road
Suite 210
Lisle, IL 60532

Ref # N0016 001158 164
 Invoice #
 PO #
 Dept #

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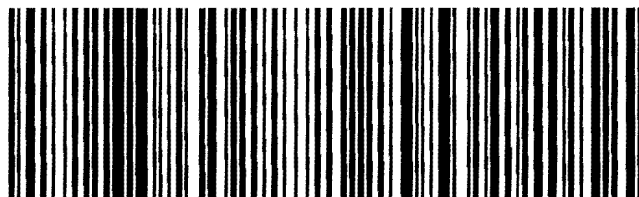
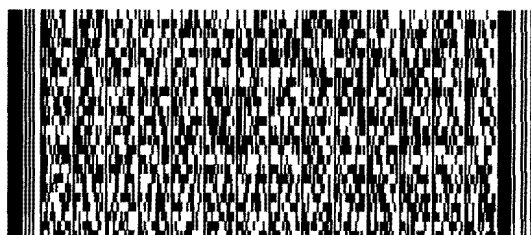
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