

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 999-90003/94019(DRSS)

License No. SNM-0423 (terminated)

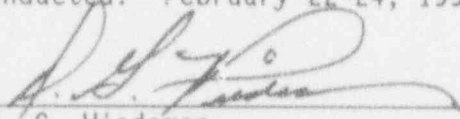
Docket No. 070-00441(terminated)

Licensee: Detroit Edison Company  
2000 Second Avenue  
Detroit, Michigan 48226

Inspection At: Detroit Edison, Engineering and Research Facility  
6100 W. Warren  
Detroit, Michigan

Inspection Conducted: February 22-24, 1994

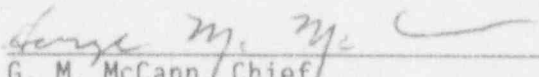
Inspector:

  
D. G. Wiedeman  
Senior Health Physicist

Date

3/8/94

Approved by:

  
G. M. McCann, Chief  
Fuel Facilities and Decommissioning  
Section

Date

3/9/94

Inspection Summary

Inspection on February 22-24, 1994 (Report No. 999-90003/94019(DRSS))

Areas Inspected: This was a special inspection to review the licensee's activities and to determine if licensed material was properly transferred to an authorized recipient and buildings used under the former AEC license were properly decontaminated prior to the termination of the license. The inspector conducted an independent review of transfer records and performed radiation surveys in the licensee's building that was used for research and testing. This inspection was part of an NRC project which evaluated approximately 17,000 retired licenses. An NRC contractor, Oak Ridge National Laboratories (ORNL) performed the evaluation. On the basis of the information in the retired license file, such as type and quantity of authorized materials and lack of adequate decontamination documentation, ORNL concluded that these facilities have the potential for residual radioactive contamination.

Results: All licensed material possessed under AEC License No. SNM-0423 was properly transferred to AEC License No. DPR-9. All buildings and facilities formerly covered under AEC License No. SNM-0423 were free of residual contamination.

## DETAILS

### 1. Persons Contacted

#### Detroit Edison Company

- \*Evelyn Madsen, Principal Engineer
- \*Robert Newkirk, Director, Nuclear Licensing
- David Dumas, Radiation Safety Officer (Materials Program)
- \*Edward Jordan, Environmental Compliance Specialist
- \*John P. Williams, Site Administrator, Sibley Quarry

\*Attended the exit meeting conducted on February 24, 1994.

### 2. Background

AEC License No. SNM-0423 was issued to Detroit Edison Company on November 29, 1960, based upon their application dated August 10 and October 17, 1960, and was terminated on March 9, 1973. Authorized activities included metallurgical examination or chemical analysis of unirradiated fuel elements containing uranium enriched in the uranium-35 isotope, Attachment A. Licensed activities were authorized for two locations of use, located at the following addresses: (1) 6100 W. Warren, Detroit, and (2) 6605 W. Jefferson, Detroit, Michigan. The NRC inspector's review of transfer records indicate that prior to the termination of this license, all special nuclear materials were transferred in 1973 to Power Reactor Development Company, License No. DPR-9. This license was subsequently issued to Detroit Edison Company on January 23, 1976.

### 3. Facility Status

Currently the facilities located at 6100 W. Warren, Detroit, Michigan are Detroit Edison's Engineering and Research facility which is covered under NRC Byproduct Material License No. 21-02335-02. The former research buildings used by Detroit Edison Company at 6605 W. Jefferson, Detroit (Delray Power Plant) under License No. SNM-0423 were demolished approximately three years ago.

### 4. Independent Measurements

Background radiation measurements were taken in the downtown area of Detroit, Michigan with a Victoreen Model 190 and Ludlum Model 19 portable survey instruments. Background measured 45-55 counts per minute (cpm) with the Victoreen and 7-15 microroentgens per hour ( $\mu$ R/h) (1.8-3.8 nanocoulomb per kilogram per hour) (nC/kg/h) with the Ludlum.

Independent radiation surveys were performed with a Victoreen Model 190 portable survey instrument with a Model RP-1 pancake probe, NRC Tag No. 042443, and Ludlum Model 19, NRC Tag No. 015522, calibrated on February 1, 1994 and July 28, 1993, respectively. Prior to the surveys

all instruments were checked for accuracy and constancy with dedicated and traceable check sources. All instruments responded as expected.

The inspector conducted radiation surveys in and around selected rooms at 6100 W. Warren, Detroit, Michigan. The radiation surveys included areas in and around the Electron Microscope Room and Metallurgy Room. The areas surveyed included hallways, offices, former manufacturing and storage areas, and loading dock. The NRC inspector's survey of the above referenced rooms and adjacent property did not identify any radiation levels above natural background.

5. Exit Meeting

The NRC inspector conducted an exit meeting at the conclusion of the inspection with the individuals identified in Section 1 of this report and summarized the findings of the inspection. The inspector informed the licensee that it appeared that all licensed material formerly licensed under AEC Special Nuclear Material License No. SNM-0423 had been properly transferred prior to the termination of the license and all remaining buildings used for licensed activities had been properly decommissioned. During the exit meeting, none of the participants indicated to the inspector that any of the inspection findings or documents provided to the inspector were considered proprietary.

Attachment: AEC licenses  
dtd 11\29\60 & 11\20\69

UNITED STATES  
ATOMIC ENERGY COMMISSION

SPECIAL NUCLEAR MATERIAL LICENSE

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 70, "Special Nuclear Material Regulations," a license is hereby issued authorizing the licensee to receive and possess the special nuclear material designated below; to use such special nuclear material for the purpose(s) and at the place(s) designated below; and to transfer such material to persons authorized to receive it in accordance with the regulations in said Part. This license shall be deemed to contain the conditions specified in Section 70.32(a) of said regulations, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		3. License No.
1. Name	The Detroit Edison Company	SNM-423
2. Address	2000 Second Avenue Detroit 26, Michigan	4. Expiration Date November 30, 1963
		5. Docket No. 70-141
6. Special Nuclear Material	7. Maximum quantity of special nuclear material which licensee may possess at any one time under this license	
Uranium enriched in the U-235 isotope.	500 grams U-235 as contained in non-irradiated fuel element samples.	
8. Authorized use	According to the procedures submitted in the licensee's applications dated August 10 and October 17, 1960.	
9. Quantity of special nuclear material allocated to licensee pursuant to Section 70.31(b) of said part	None herein allocated.	

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.

Authorized place of use: The Detroit Edison Company  
Engineering Research Department  
6605 West Jefferson Avenue  
Detroit 17, Michigan

For the U. S. ATOMIC ENERGY COMMISSION

Date of issuance

11/29/60

JCB  
12/2/60

U. S. GOVERNMENT PRINTING OFFICE: 1959-O-041588

J. C. Dolaney  
Director of Licensing and Regulation



COPY

Form AEC-401  
9/68

UNITED STATES  
ATOMIC ENERGY COMMISSION

**SPECIAL NUCLEAR MATERIAL LICENSE**

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter I, Part 70, "Special Nuclear Material", a license is hereby issued authorizing the licensee to receive and possess the special nuclear material designated below; to use such special nuclear material for the purpose(s) and at the place(s) designated below; and to transfer such material to persons authorized to receive it in accordance with the regulations in said Part. This license shall be deemed to contain the conditions specified in Section 70.32(a) of said regulations, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		3. License No. SNM-423
1. Name	The Detroit Edison Company	4. Expiration Date November 30, 1974
2. Address	2000 Second Avenue Detroit, Michigan 48226	5. Docket No. 70-441

6. Special Nuclear Material Uranium enriched in the U-235 isotope.	7. Maximum quantity of special nuclear material which licensee may possess at any one time under this license  Two hundred (200) grams of U-235 contained in non-irradiated fuel element samples.
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8. Authorized use  
For use in accordance with the statements, representations, and conditions specified in the licensee's applications dated August 10 and October 17, 1960, and supplements dated October 2, 1963, January 25 and October 4, 1966, and October 30, 1969.

CONDITIONS

9. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.  
Authorized place of use: The licensee's Engineering Research Department  
→ 6100 W. Warren  
Detroit, Michigan

For the U.S. ATOMIC ENERGY COMMISSION

Date of issuance NOV 20 1969

*[Signature]* 11/20/69

Robert L. Layfield  
Division of Materials Licensing

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ATTACHMENT A