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DTE Energy



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NRC-06-0026

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

- References:
- 1) Enrico Fermi Atomic Power Plant, Unit No. 1
NRC Docket No. 50-16
NRC License No. DPR-9
 - 2) Fermi 1 Retirement Report, NP-20047, Sup. 1,
Dated October, 1975
 - 3) Power Reactor Development Company Letter to U.S. ERDA,
Dated November 6, 1975
 - 4) Detroit Edison Letter,
Dated October 15, 1975
 - 5) NRC Letter, Issuance of Amendment 8 to Provisional Operating
License No. DRP-9,
Dated January 23, 1976
 - 6) Detroit Edison Letter to NAC International
NAEF-03-0029, "Report of Information for Fermi 1 Per
NRC Bulletin 2003-04",
Dated January 6, 2004

Subject: **Plan to Disposition Depleted Uranium Identified at Fermi 1**

The purpose of this letter is to formally notify the Nuclear Regulatory Commission (NRC) regarding identification of several depleted uranium blocks during decommissioning of Fermi 1 and commit to disposition of the material offsite. This letter is responsive to discussions between L. Goodman, Manager, Fermi 1, and, T. Smith, M. Higgins, B. Watson, G. Comfort, and J. Cameron of the NRC staff. This letter contains information similar to that in NRC Form 244, "Registration Certificate – Use of Depleted Uranium Under General License". Form 244 does not specifically apply to the present circumstances.

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Identification of Depleted Uranium

During decommissioning activities at Fermi 1 on March 08, 2006, mechanics were disassembling the Fuel Transport Facility Reactor Building gripper cask valve within a work enclosure. At approximately 1400 they removed a cover plate from the valve disc slide. The mechanics and a Radiation Protection (RP) technician observed an array of blocks labeled, "depleted uranium". The RP technician promptly obtained smears of the blocks and work area, and the mechanics replaced the cover plate on the valve disc slide. They stopped work and comprehensive surveys and monitoring were conducted. There was no spread of alpha contamination from the depleted uranium. Alpha particles were detected from the smears of the depleted uranium blocks, as expected. The size of the valve disc slide containing the depleted uranium is approximately 1.5ft³. A corrective action document was prepared.

Detroit Edison's license for Fermi 1 authorizes possession of the facility, byproduct material and special nuclear material pursuant to 10CFR Parts 30, 50, and 70. It does not specifically cover source material which is regulated per 10CFR40. Depleted uranium is a source material per 10CFR40. The identification of the depleted uranium in a Radiologically Restricted Area (RRA) within the Fermi 1 Controlled Area does not meet the reporting criteria per the Fermi 1 Technical Specifications. It also does not have a significant implication for public health and safety or common defense and security, and so does not meet the reporting criteria of 10CFR40.9, or 10CFR50.9. P. Lee, NRC Region III, and T. Smith, NRC Headquarters were informed of the identification of the material on March 09, 2006.

Background

The Fuel Transport Facility (FTF) was supplied to Fermi 1 in the mid-1960's by Atomic International, a licensee of the State of California and Atomic Energy Commission. Depleted uranium was used as shielding in some components because of its concentrated mass in a small volume as shown on system drawings. Per Reference 2, the depleted uranium shielding was removed from the FTF during retirement activities in 1975. Per Section 1.9.1, the reactor building gripper cask and plug cask remained intact in the building, and, "do not contain uranium".

Additionally, the Power Reactor Development Company (PRDC) reported to the NRC in Reference 3 that, "all depleted uranium has now been shipped offsite". PRDC was the licensee for Fermi 1 during facility operation. After the retirement activities were completed, the license was transferred to Detroit Edison. Reference 4 is the request for transfer, which was approved by Reference 5. The transferred license did not include source material, most likely because it had been reported to have been shipped offsite.

During preparation of the response to NRC Bulletin 2003-04, Detroit Edison contacted NAC International. As discussed in Reference 6, the NMMSS database at the time, showed 6439kg of depleted uranium at Fermi 1. DOE / NRC Form 741 corrected this information,

since facility records, inspection, and letters did not show depleted uranium remaining onsite and documented that it was shipped offsite.

Disposition Plans

Detroit Edison has no intention of keeping the depleted uranium for future use.

Detroit Edison will submit a follow-up letter to the NRC after the depleted uranium has been shipped offsite for disposal or to another transferee, no later than September 08, 2006. This will allow time for appropriate characterization for shipping and disposition arrangements to be made. Shipping depleted uranium will be a first time evolution for Detroit Edison shippers, so additional time will be necessary to research the requirements and allow for contingencies since the requirements are not known. Additionally, qualified personnel are heavily involved in the current Fermi 2 refueling outage and will be engaged in outage follow-up items immediately thereafter. The depleted uranium is stored in a safe manner in a controlled area, so allowing sufficient time to research the requirements, arrange for disposition and execute the plan in accordance with all shipping regulations is a low risk activity.

10CFR40.25 provides a general license for use of depleted uranium contained in industrial products and devices for the purpose of providing a concentrated mass in a small volume of the product or device, provided specified provisions are met. Based on the circumstances, the specified provisions were not met in this case. One of the provisions is to submit NRC Form 244 within 30 days of receiving the depleted uranium.

The following information is similar to that required by Form 244, as requested by NRC representatives:

- 1.) Possessor of the Depleted Uranium:
Detroit Edison
6400 N. Dixie Hwy.
Newport, MI 48166
- 2.) Procedures have previously been developed to establish control over radioactive materials at Fermi 1 per the Technical Specifications. These procedures will also be used to control the depleted uranium. Procedures include transferring radioactive material only to authorized persons. The procedures will be augmented to address actions if depleted uranium is identified in the future.
- 3.) Name and / or title and contact information for individual authorized to act for and on behalf of the possessor in supervising the above procedures:

Manager, Fermi 1 (Fermi 1 Custodian)
6400 N. Dixie Hwy.
Newport, MI 48166
734-586-1205 (telephone), 734-586-1776 (fax), email goodmanl@dteenergy.com

- 4.) The depleted uranium will not be treated, modified or processed, except as needed to cover or contain it, or to characterize or package it for shipment.
- 5.) The recipient of the depleted uranium will meet the requirements of 10CFR40.51 for transfer of source material.

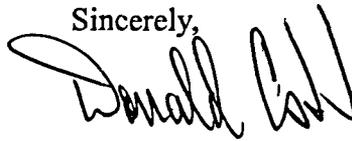
Any Potential Future Identification of Depleted Uranium

Detroit Edison is not currently aware of additional depleted uranium at Fermi 1, but wants to establish the protocol if any is identified in the future. From review of the FTF system drawings, the design of other remaining components did not contain depleted uranium for shielding. If any additional depleted uranium is identified at Fermi 1, the NRC will be notified within 30 days of identification. Within 120 days of the material identification, the depleted uranium will be sent offsite and a letter submitted to the NRC documenting the transfer, or a license amendment application will be submitted.

To summarize, Detroit Edison has identified approximately 1.5ft³ of depleted uranium at Fermi 1. It is being stored in a Radiologically Restricted Area in the Controlled Area, until disposition. The material will be shipped offsite and the NRC notified after the shipment.

If there are any questions, please contact Lynne Goodman, Manager, Fermi 1, at 734-586-1205.

Sincerely,



Donald Cobb
Assistant Vice President, Nuclear Generation

DC/LSG/ljd

Enclosure

cc: Regional Administrator, NRC Region III
T. Smith, NRC Headquarters
J. Cameron, NRC Region III
P. Lee, NRC Region III
M. Morris, Fermi 2 Sr. Resident Inspector