

November 30, 2004

Mr. James E. Ellis
Manager, Morris Operation
General Electric Company
7555 East Collins Road
Morris, IL 60450

SUBJECT: NOTICE OF ISSUANCE OF ENVIRONMENTAL ASSESSMENT FOR THE
GENERAL ELECTRIC COMPANY APPLICATION FOR LICENSE RENEWAL
FOR THE MORRIS OPERATION INDEPENDENT SPENT FUEL STORAGE
INSTALLATION (TAC NO. L23091)

Dear Mr. Ellis:

By letter dated May 20, 2000, you submitted an application, in accordance with 10 CFR Part 72, for renewal of the materials license for the General Electric Morris Operation (GEMO), Independent Spent Fuel Storage Installation (ISFSI). Subsequently, by letters dated August 13, 2001, September 27, 2003, and August 9, 2004, you supplemented the application by providing the staff with the necessary revisions to the GEMO Consolidated Safety Analysis Report (CSAR) and Environmental Report. Enclosed is a copy of the Nuclear Regulatory Commission's Environmental Assessment of the proposed license renewal action.

For your information, I am also enclosing a copy of the Notice of Issuance of an Environmental Assessment and Finding of No Significant Impact for the 10 CFR Part 72 Materials License renewal application for the GEMO ISFSI. The notice has been forwarded to the Office of the Federal Register for publication.

If you have any questions regarding this matter, please contact me at (301) 415-1179. Please refer to Docket No. 72-1 and TAC No. L23091 in future correspondence related to our review of this renewal application.

Sincerely,

/RA/
Christopher M. Regan, Senior Project Manager
Licensing Section
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Docket No. 72-1
TAC No. L23091

Enclosure: 1) Environmental Assessment
2) Federal Register Notice

cc: Mailing List

Mr. James E. Ellis
Manager, Morris Operation
General Electric Company
7555 East Collins Road
Morris, IL 60450

November 30, 2004

SUBJECT: NOTICE OF ISSUANCE OF ENVIRONMENTAL ASSESSMENT FOR THE GENERAL ELECTRIC COMPANY APPLICATION FOR LICENSE RENEWAL FOR THE MORRIS OPERATION INDEPENDENT SPENT FUEL STORAGE INSTALLATION (TAC NO. L23091)

Dear Mr. Ellis:

By letter dated May 20, 2000, you submitted an application, in accordance with 10 CFR Part 72, for renewal of the materials license for the General Electric Morris Operation (GEMO), Independent Spent Fuel Storage Installation (ISFSI). Subsequently, by letters dated August 13, 2001, September 27, 2003, and August 9, 2004, you supplemented the application by providing the staff with the necessary revisions to the GEMO Consolidated Safety Analysis Report (CSAR) and Environmental Report. Enclosed is a copy of the Nuclear Regulatory Commission's Environmental Assessment of the proposed license renewal action.

For your information, I am also enclosing a copy of the Notice of Issuance of an Environmental Assessment and Finding of No Significant Impact for the 10 CFR Part 72 Materials License renewal application for the GEMO ISFSI. The notice has been forwarded to the Office of the Federal Register for publication.

If you have any questions regarding this matter, please contact me at (301) 415-1179. Please refer to Docket No. 72-1 and TAC No. L23091 in future correspondence related to our review of this renewal application.

Sincerely,
/RA/
Christopher M. Regan, Senior Project Manager
Licensing Section
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Docket No. 72-1
TAC No. L23091

Enclosure: 1) Environmental Assessment
2) Federal Register Notice

cc: Mailing List

Distribution:

NRC File Center Docket SBaggett LCampbell CBrown
GHornseth KHardin RLandsman, RIII KO'Brien, RIII NJensen, OGC
E:\Filenet\ML043360409.wpd

| | | | | | | |
|--------------|-------------|--|-------------|--|-------------|--|
| OFC: | SFPO | | SFPO | | SFPO | |
| NAME: | CRegan | | EZiegler | | JMonninger | |
| DATE: | 10/19/2004 | | 10/19/2004 | | 11/30/2004 | |

OFFICIAL RECORD COPY

Mr. J. Ellis
Docket No.: 72-01

General Electric Company - Morris Operation

cc:
Mr. Christopher J. Monetta
General Electric Co.
3901 Castle Hayne Road
Mail Code J26
Wilmington, NC 28402

Grundy County Clerk
111 East Washington Street
P. O. Box 675
Morris, IL 60450-0675

Mr. Thomas W. Ortziger, Director
Illinois Department of Nuclear Safety
1035 Outer Park Drive
Springfield, IL 62704

Director, Division of Nuclear Materials Safety,
Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

**U.S. NUCLEAR REGULATORY COMMISSION
DOCKET NO. 72-01
GENERAL ELECTRIC COMPANY
NOTICE OF ISSUANCE OF AN ENVIRONMENTAL ASSESSMENT
AND
FINDING OF NO SIGNIFICANT IMPACT
FOR LICENSE RENEWAL OF THE MORRIS OPERATION
INDEPENDENT SPENT FUEL STORAGE INSTALLATION**

ACTION: Environmental Assessment

FOR FURTHER INFORMATION CONTACT: Christopher M. Regan, Senior Project Manager, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Telephone: (301) 415-1179; fax number: (301) 415-1179; e-mail: cmr1@nrc.gov.

SUPPLEMENTARY INFORMATION:

The U.S. Nuclear Regulatory Commission (NRC or the Commission) is considering the renewal of the materials license under the requirements of Title 10 of the Code of Federal Regulations, Part 72 (10 CFR Part 72), to the General Electric Company (the applicant), authorizing the operation for an additional 20 years, beyond the initial license term, of the General Electric Morris Operation (GEMO) independent spent fuel storage installation (ISFSI) located in Grundy County, Illinois. The Commission's Office of Nuclear Material Safety and Safeguards (NMSS) has completed its review of the environmental report, submitted by the applicant on May 22, 2000, in support of its application for renewal of its materials license. The staff's "Environmental Assessment Related to the License Renewal of the General Electric

Morris Operation Independent Spent Fuel Storage Installation” has been issued in accordance with 10 CFR Part 51.

I. SUMMARY OF ENVIRONMENTAL ASSESSMENT (EA)

Description of the Proposed Action: The proposed licensing action would renew the license to operate a wet storage ISFSI at the GEMO site. The purpose of the ISFSI is to provide for interim storage of spent nuclear fuel generated from the operation of nuclear power reactors using natural water for cooling and enriched Uranium-235 fuel. The GEMO ISFSI is a wet pool storage design and is the only wet “away from reactor” ISFSI of its kind in the U.S.. The major components of the system for storage of spent nuclear fuel include the stainless steel lined concrete storage basins, the pool structure, the spent fuel storage grid structure and fuel storage baskets each containing nine boiling water reactor (BWR) spent fuel assemblies or twelve pressurized water (PWR) spent fuel assemblies, ancillary equipment necessary for the movement of spent nuclear fuel, e.g., cranes and basket grappling devices, and equipment necessary for the maintenance of the pool water quality and level. A license issued for an ISFSI under 10 CFR Part 72 is issued for a fixed period not to exceed 20 years. The proposed GEMO ISFSI renewed license will expire in May 2022, 20 years from expiration of the current ISFSI license.

Need for the Proposed Action: The GEMO ISFSI is needed to provide continued interim storage capacity until such a time that the spent nuclear fuel will be accepted for disposition at a Federal repository. A denial of the request to renew the ISFSI license would result in the cessation of normal operations and the beginning of decommissioning activities. By providing continued interim storage in the GEMO ISFSI there will be no immediate need to move the fuel to another interim storage facility.

Environmental Impacts of the Proposed Action: The NRC staff has concluded that the continued operation of the GEMO ISFSI will not result in a significant impact to the environment. The prior NRC Environmental Impact Appraisal associated with the issuance of Materials License SNM-2500 in May 1982 continues to form the basis for assessing the potential environmental impacts of the proposed license renewal action. The environmental

impacts associated with the proposed action concentrate on only those impacts projected to occur during the 20 year license renewal time period. Environmental impacts include the potential direct effects on the ambient environment and its resources. These potential impacts can be categorized as non-radiological and radiological impacts.

There will be no significant radiological or non-radiological environmental impacts from routine operation of the GEMO ISFSI during the extended period of operation. The ISFSI is essentially a passive facility with no liquid and gaseous effluents released from the ISFSI that exceed Federal regulatory limits. The continued operation of the GEMO ISFSI will result in no change to the current impact on land use, water resources, air quality, generation of wastewater, geology, biota, cultural resources, and area demographics and socio-economics. The GEMO ISFSI is in its completed configuration and as such there will be no environmental impacts from construction activities. The staff does not expect operation of the GEMO ISFSI for an additional period of 20 years to impact any threatened or endangered species. The radiological dose rates from the spent fuel pool will be limited by the design of the basin, the depth of basin water, and the basin superstructure. The total occupational dose to workers at the GEMO site resulting from continued ISFSI operation will have a small impact on workers or the public, but all occupational doses must be maintained below the limits specified in 10 CFR Part 20. The annual dose to the nearest resident from GEMO ISFSI activities remains significantly below the annual dose limits specified in 10 CFR 72.104 and 10 CFR 20.1301 (25 mrem and 100 mrem, respectively). The cumulative dose to an individual offsite from all site activities will be 2.2×10^{-5} mrem/year, which is also much less than the limits specified in 10 CFR 72.104 and 10 CFR 20.1301. These doses are also a small fraction of the doses resulting from naturally-occurring terrestrial and cosmic radiation of about 100 mrem/yr in the vicinity of the GEMO ISFSI. Additionally, occupational doses received by facility workers will not exceed the limits specified in 10 CFR 20.1201. For hypothetical accidents, the calculated dose to an individual at the nearest site boundary is well below the 5 rem limit for accidents set forth in 10 CFR 72.106(b) and in the U.S. Environmental Protection Agency's protective action guidelines.

Alternatives to the Proposed Action: The applicant's Environmental Report and the staff's EA discuss the No Action alternative to renewal of the GEMO ISFSI license. The No-Action alternative includes shipment of the spent nuclear fuel off site to another NRC licensed interim storage facility and subsequent decommissioning of the GEMO ISFSI. Other

alternatives, including shipping of spent nuclear fuel from GEMO to a permanent Federal repository, to a reprocessing facility, or to a privately owned spent fuel storage facility were determined to be non-viable alternatives, as no such facilities are currently available in the United States, and shipping the spent fuel overseas is impractical in light of the political, legal, and logistical uncertainties and the high cost and therefore were also not considered viable alternatives. The No-Action alternative considered the environmental consequences of shipping the GEMO spent nuclear fuel inventory to another NRC licensed ISFSI and the consequences of immediate decommissioning and decontamination (D&D) verses D&D at the end of the renewed license renewal term.

The environmental impacts from the No-Action alternative include an immediate short term increase in air releases from machinery necessary for the transport of the spent nuclear fuel offsite and the equipment necessary for dismantling and demolition of the GEMO buildings. Additionally, there will be a small impact on water resources resulting from an increase in water consumption from decontamination activities necessary for fuel shipment. The specific type of D&D activities will remain unchanged, however, the activities would be undertaken immediately rather than at the end of the proposed 20 year extended period of operation. Onsite facilities are capable of processing of the sanitary wastewater generated by D&D activities and therefore D&D activities would result in no long-term small impacts. The No-Action alternative would result in no other non-radiological long-term small impacts. The No-Action alternative would require movement of the spent nuclear fuel inventory to another NRC licensed ISFSI. These activities are similar to, but in reverse of, receipt operations and do result in an increased level of occupational exposures and exposure to the public. Shipment of the spent nuclear fuel to another NRC licensed ISFSI before the Federal repository is ready to receive the fuel would result in two separate shipping activities, the first shipment moving the spent nuclear fuel from the GEMO ISFSI to another NRC licensed ISFSI, and the second from the second NRC licensed ISFSI to the Federal repository. Two shipments would result in more radiological consequences than a single shipment. Additionally, since the constituents of the spent nuclear fuel decay over time the radiological impacts of shipment would be larger if the spent nuclear fuel were moved immediately verses movement at the end of the proposed license renewal period in the year 2022. In the long-term, the immediate decommissioning of the GEMO ISFSI would have a larger negative impact on the local economy and infrastructure than if

decommissioning were to take place at the end of the proposed extended period of operation. For the reasons cited above, the No-Action alternative considered is a less practical alternative.

As discussed in the EA, the Commission has concluded that there are no significant environmental impacts associated with the proposed license renewal of the GEMO ISFSI, and other alternatives were not pursued because of additional occupational exposures, and the impracticality of other offsite storage options.

Agencies and Persons Contacted: Officials from the Illinois Emergency Management Agency and the Illinois Office of the Governor were contacted in preparing the staff's Environmental Assessment. The Illinois Emergency Management Agency, provided comments by letter dated May 14, 2004. These comments have been addressed in the Environmental Assessment.

II. FINDING OF NO SIGNIFICANT IMPACT

The staff has reviewed the environmental impacts for the proposed license renewal of the GEMO ISFSI relative to the requirements set forth in 10 CFR Part 51, and has prepared an Environmental Assessment. Based on the Environmental Assessment, the staff concludes that there are no significant radiological or non-radiological impacts associated with the proposed action and that issuance of a renewed license for the interim storage of spent nuclear fuel at the GEMO ISFSI will have no significant impact on the quality of the human environment. Therefore, pursuant to 10 CFR 51.31 and 51.32, a finding of no significant impact is appropriate and an environmental impact statement need not be prepared for the issuance of a renewed materials license for the GEMO ISFSI.

Further details related to this proposed action are provided in the license application, dated May 5, 2000, as supplemented August 13, 2001, September 27, 2003, and August 9, 2004, and the staff's Environmental Assessment, dated November 30, 2004. However, as of October 25, 2004, the NRC initiated an additional security review of publicly available documents to ensure that potentially sensitive information is removed from the Agencywide Documents Access and Management System (ADAMS) database accessible through the

NRC's website at: <http://www.nrc.gov/reading-rm/adams.html>. Interested members of the public should check the NRC's web pages for updates on the availability of documents through the ADAMS system. Copies of the referenced documents are available for review and/or copying at the Commission's Public Document Room, One White Flint North Building, 11555 Rockville Pike, Rockville, Maryland, pending resumption of public access to ADAMS. The NRC Public Document Room (PDR) Reference staff can be contacted at 1-800-397-4209, 301-415-4737 or by email to pdr@nrc.gov.

Dated at Rockville, Maryland, this 30th day of November 2004.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION
/RA/
Christopher M. Regan, Senior Project Manager
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Documents Access and Management System (ADAMS) database accessible through the NRC's website at: <http://www.nrc.gov/reading-rm/adams.html>. Interested members of the public should check the NRC's web pages for updates on the availability of documents through the ADAMS system. Copies of the referenced documents are available for review and/or copying at the Commission's Public Document Room, One White Flint North Building, 11555 Rockville Pike, Rockville, Maryland, pending resumption of public access to ADAMS. The NRC Public Document Room (PDR) Reference staff can be contacted at 1-800-397-4209, 301-415-4737 or by email to pdr@nrc.gov.

Dated at Rockville, Maryland, this 30th day of November 2004.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION
/RA/
Christopher M. Regan, Senior Project Manager
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

E:\Filenet\ML043360409.wpd

*See previous Concurrence

| | | | | | | | | | | |
|-------------|------------|---|------------|---|---------------|--|-------------|--|--|--|
| OFC | SFPO | E | SFPO | E | OGC | | SFPO | | | |
| NAME | CRegan* | | EZiegler* | | Streby* [NLO] | | JDMonninger | | | |
| DATE | 10/ 19 /04 | | 10/ 19/ 04 | | 10/ 26 /04 | | 11/ 30 /04 | | | |

C = Cover E = Cover & Enclosure N = No copy
OFFICIAL RECORD COPY