December 29, 2010

Mr. Christopher J. Monetta, General Manager
Global Laser Enrichment
GE-Hitachi Global Laser Enrichment, LLC
3901 Castle Hayne Road, Mail Code J 20
Wilmington, NC 28402-2819

SUBJECT: NRC INSPECTION REPORT 07200001/2010-001(DNMS) - G.E. MORRIS

Dear Mr. Monetta:

On December 2, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed inspection activities at the General Electric-Hitachi Morris Operation Facility in Morris, Illinois. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. Specifically, during an on-site inspection on November 3-5, 2010, and subsequent in-office review through December 2, 2010, the inspectors evaluated your emergency preparedness program, environmental monitoring and radiation protection programs, quality assurance program, surveillance and maintenance program, training, and actions with respect to Open Item 2008-001-01, which is described in Inspection Report 07200001/2008-001(DNMS) (ML083240095). At the conclusion of the inspection, the results were discussed with Mr. McFadden of your staff during an exit teleconference on December 2, 2010.

Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, interviews with personnel, and observations of activities in progress.

Based on the results of this inspection, the inspectors did not identify any violations of NRC requirements.

In accordance with Title 10 of the Code of Federal Regulations (CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC website at http://www.nrc.gov/reading-rm/adams.html.

We will gladly discuss any questions you have concerning this inspection. If you have questions, please contact Mr. Jeremy Tapp of my staff at (630) 829-9862.

Sincerely,

/RA/

Christine A. Lipa, Chief
Materials Control, ISFSI, and
Decommissioning Branch

Docket No. 07200001
License No. SNM-2500

Enclosure:
Inspection Report 07200001/2010-001(DNMS)

cc w/encl: A. McFadden, Manager, Morris Operation
C. Settles, Head Resident Inspection
Illinois Emergency Management Agency

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cc w/encl: A. McFadden, Manager, Morris Operation
C. Settles, Head Resident Inspection
Illinois Emergency Management Agency

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.:	072-00001
License No.:	SNM-2500
Report No.:	07200001/2010-001(DNMS)
Licensee:	GE-Hitachi Nuclear Energy Americas, LLC
Facility:	Morris Operation
Location:	7555 East Collins Road Morris, IL 60450
Dates:	November 3 - 5, 2010 onsite with in-office review through December 2, 2010
Inspectors:	Jeremy Tapp, Health Physicist Rhex Edwards, Reactor Engineer Matthew Learn, Reactor Engineer
Approved by:	Christine A. Lipa, Chief Materials Control, ISFSI, and Decommissioning Branch Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

GE-Hitachi Nuclear Energy Americas, LLC
Morris Operation
NRC Inspection Report 07200001/2010-001(DNMS)

The inspection consisted of observations of site activities and an evaluation of the licensee's programs including radiation protection, surveillance and maintenance, environmental monitoring, training, quality assurance, and observation and evaluation of the Emergency Plan exercise.

Emergency Preparedness

- The licensee adequately demonstrated the effectiveness of its Emergency Plan and its ability to implement it in response to a simulated emergency. The licensee also adequately resolved identified inconsistencies between site procedures and regulatory requirements and NRC guidance. (Section 1.1)

Radiation Protection and Environmental Monitoring

- The licensee established and maintained its environmental monitoring and radiation protection programs in accordance with applicable 10 CFR Part 20 and 72 regulations, the License, and Technical Specifications. (Section 1.2)

Quality Assurance

- The licensee was conducting audits, Safety Review Committee meetings, corrective actions, and procedural changes in accordance with the Technical Specifications, regulatory requirements, and applicable site procedural requirements. (Section 1.3)

Surveillance and Maintenance

- The licensee implemented its surveillance and maintenance program in accordance with applicable regulations, the License, and Technical Specifications. (Section 1.4)

Training

- The licensee's training program complied with the requirements of the applicable regulations and the license. (Section 1.5)

Report Details

1.0 Away from Reactor Independent Spent Fuel Storage Installation (ISFSI) (IP 60858)

1.1 Emergency Preparedness

a. Inspection Scope

The inspectors observed and evaluated the conduct of the licensee's biennial emergency response exercise. The inspectors reviewed the General Electric-Hitachi Morris Operation (GEHMO) Emergency Plan and implementing procedures, and observed the licensee in a pre-exercise briefing to go through the exercise scenario and the sequence of expected player and controller actions. The inspectors observed the licensee's formal post-exercise critique conducted with onsite and off-site participants and observers immediately following the exercise. The inspectors also evaluated the licensee's actions in regards to Open Item (OI) 07200001/2008-001-01, regarding their emergency classification for a contaminated and injured individual and classification terminology of a non-emergency Unusual Event.

b. Observations and Findings

Section 8.5 of the GEHMO Emergency Plan requires the licensee to perform a biennial exercise to demonstrate emergency response capabilities and effectiveness of the Emergency Plan. The scenario for the November 3, 2010 exercise involved a simulated contaminated and injured individual during the backshift. The Coal City Fire Department provided offsite medical support in real time in response to the simulated emergency.

In response to the event, the licensee took adequate and timely actions to address the simulated medical event. The licensee correctly classified the event according to the Emergency Plan, made timely notifications, augmented personnel as needed, conducted adequate radiological monitoring, and ensured the safety of personnel. During the post exercise critique, the licensee adequately evaluated its emergency response and management capability by identifying strengths and weaknesses, and a number of improvements that could be made.

In response to the issues identified in OI 07200001/2008-001-01, the licensee took actions to revise the GEHMO Emergency Plan and implementing procedures to be consistent with regulatory requirements and U.S. Nuclear Regulatory Commission (NRC) guidance. Specifically, the licensee revised the Personnel Contamination abnormal condition to classify it as a Non-Emergency condition, which is consistent with Title 10 of the Code of Federal Regulations (CFR) Part 72 requirements and NRC guidance. Also, the licensee revised the non-emergency Unusual Event classification to a Non-Emergency Condition classification, which is consistent with 10 CFR Part 72 terminology. Since the licensee has taken the actions described above, which satisfy the issues discussed in OI 07200001/2008-001-01, this OI is closed.

No findings of significance were identified.

c. Conclusion

The licensee adequately demonstrated the effectiveness of its Emergency Plan and its ability to implement it in response to a simulated emergency. The licensee also adequately resolved identified inconsistencies between site procedures and regulatory requirements and NRC guidance.

1.2 Radiation Protection and Environmental Monitoring

a. Inspection Scope

The inspectors reviewed the licensee's 2009 Environmental Operating Report as required by 10 CFR Part 72 and Technical Specification 8.2.1 to verify the maximum potential dose to a member of the public was below the required 10 CFR Part 72 limit. In combination with the Environmental Operating Report review, the inspectors evaluated a sampling of the site boundary thermoluminescent detector (TLD) values for 2009 and 2010 to verify the value reported in the 2009 Environmental Operating Report and that the TLD results were consistent with site radiological conditions. The licensee's Environmental Monitoring Program was also reviewed to determine the adequacy of the licensee's method of determining the maximum public dose. In addition, the inspectors reviewed site occupational dose data for calendar years 2008 and 2009 to verify all doses were under the limits established in 10 CFR Part 20.

b. Observations and Findings

The licensee's Environmental Monitoring Program defines the methodology for determining the maximum potential public dose at the site fence from direct radiation. This process uses the most conservative TLD value from each quarter and a conservative occupancy factor for a member of the public at the site fence. The inspectors determined that both the TLD values and occupancy factor were consistent with site radiological conditions and site access controls, respectively. The inspectors also determined the 2009 Environmental Operating Report value for maximum potential dose to a member of the public from direct radiation was consistent with the Environmental Monitoring Program methodology using the most conservative TLD data from 2009. This value, when combined with conservative effluent release dose values, was well below the regulatory limit.

The inspectors determined that the occupational doses for both 2008 and 2009 were consistent and reasonable when evaluated against the work performed by site personnel, and well under the regulatory occupational dose limits.

No findings of significance were identified.

c. Conclusion

The licensee established and maintained its environmental monitoring and radiation protection programs in accordance with applicable 10 CFR Part 20 and 72 regulations, the License, and Technical Specifications.

1.3 Quality Assurance

a. Inspection Scope

The Inspectors reviewed the licensee's audit, Safety Committee, and corrective action program, as well as the most recent audit report and minutes from the Safety Committee meetings. The inspector reviewed corrective action reports from 2009 and 2010 to determine the licensee's effectiveness in identifying, resolving, and preventing problems. The inspector also reviewed the facility or procedural changes from 2009 and 2010 to verify compliance with the applicable regulations and site procedural requirements.

b. Observations and Findings

Technical Specification 6.4.2 requires audits to be conducted in accordance with GE Nuclear Energy Management and procedures. Morris Operation Instruction (MOI) 702, "MO Internal Audits," is used for guidance on conducting audits. The most recent audit was conducted in October 2009, to evaluate the implementation of the General Electric Morris Quality Assurance plan and the applicable instructions and procedures. The audit did not identify any findings or concerns.

The Safety Committee and its function are specified in Section 6.4.1 of the Technical Specifications and in MOI-904, "Safety Committee." The safety committee is required to meet every 45 days and with a minimum of three members. The function of the Committee is to review plans, procedures, and operations involving the elements of radiological safety prior to implementation. A sample of meeting minutes, from January 2009 to October 2010, was reviewed. The minutes indicated that the Committee: met monthly; always contained the required number of members; reviewed site activities involving radiological safety; and reviewed monthly employee dose reports.

The licensee wrote one corrective action report since the previous inspection. The inspectors determined the report was adequately written in accordance with the applicable procedures and will effectively address the issue.

The licensee performed one procedural change during the timeframe reviewed, in which a 72.48 analysis was performed. The inspectors determined the licensee performed the change and associated applicability analysis in accordance with their 72.48 program and the determination that no 72.48 evaluation was required was consistent with the applicable site procedures and 10 CFR Part 72 regulations.

No findings of significance were identified.

c. Conclusion

The licensee was conducting audits, Safety Review Committee meetings, corrective actions, and procedural changes in accordance with the Technical Specifications, regulatory requirements, and applicable site procedural requirements.

1.4 Surveillance and Maintenance

a. Inspection Scope

The inspectors reviewed the licensee's surveillance and maintenance program associated with wet fuel storage to verify compliance with the applicable regulations, Technical Specifications, and applicable site procedures. The inspectors walked down the spent fuel basin (SFB), observed preventative maintenance activities, interviewed personnel, and reviewed select documents.

b. Observations and Findings

During the walk down of the site and SFB, the inspectors noted the radiological controlled areas to be generally clean and free of dirt and debris, and adequately marked and posted as required. The inspectors observed an Operations Technician perform periodic preventative maintenance on the Basin Leak Detection System. The Basin Leak Detection System is used to provide indications of a leak in the spent fuel pool liner. The current leak rate is approximately 130 gallons per minute and unchanged since the last inspection. The inspectors observed the technician verify that the detector was calibrated correctly and that the alarm unit and recorder were within specification. Procedures were present during the maintenance and were utilized by the technician.

In accordance with Technical Specification requirements, the licensee took SFB water samples in accordance with site procedures on a monthly basis to measure the conductivity and activity in the water. These values are monitored in order to maintain a benign environment for fuel and equipment stored in the SFB. The inspectors evaluated the documentation provided for 2010 and all conductivity and activity values were below those specified in the Technical Specifications.

In accordance with Technical Specification requirements, the licensee also took water samples of the sanitary lagoons on a monthly basis to measure activity in the water for environmental monitoring purposes. The inspectors evaluated the documentation provided for 2010 and all activity values were below those specified in the applicable site procedure.

No findings of significance were identified.

c. Conclusion

The licensee implemented its surveillance and maintenance program in accordance with applicable regulations, the License, and Technical Specifications.

1.5 Training

a. Inspection Scope

The inspectors reviewed the licensee's training program.

b. Observations and Findings

The inspectors reviewed the training program as well as the qualification records of Operations personnel. MOI-155, "MO Training," and MOI-606, "Morris Operations (MO) Training Program," were reviewed as well as the qualification records of the operators. The inspectors verified that all the operators met the required training requirements.

No findings of significance were identified.

c. Conclusion

The licensee's training program complied with the requirements of the applicable regulations and the license.

2.0 Exit Meeting

The inspectors presented the interim inspection results to licensee management at the conclusion of the onsite inspection on November 5, 2010. After in-office review was completed, a final exit teleconference was held on December 2, 2010. The licensee acknowledged the results presented and did not identify any of the documents reviewed as proprietary in nature.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PEOPLE CONTACTED

A. McFadden, Plant Manager
C. Lauterbur, Operations and Maintenance Coordinator
J. Legner, Administrator, EHS and Procurement

INSPECTION PROCEDURE USED

60858	Away-From-Reactor ISFSI Inspection Guidance

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened	Type	Summary
None		

Closed	Type	Summary
07200001/2008-001-01	OI	Emergency classification for a contaminated and injured individual and classification terminology of a non-emergency Unusual Event

Discussed

None

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CFR	Code of Federal Regulations
GEHMO	General Electric-Hitachi Morris Operation
NRC	Nuclear Regulatory Commission
MO	Morris Operation
MOI	Morris Operation Instruction
OI	Open Item
SFB	Spent Fuel Basin
SOP	Standard Operating Procedure
TLD	thermoluminescent dosimeter

LIST OF DOCUMENTS REVIEWED

Corrective Action Report MO-09-001; Basin Filter Instrumentation Line; January 26, 2009

Audit Report MO INT 09-01; MO 2009 Internal Quality Assurance Audit; October 26, 2009

Audit Report; GE Morris Operation Independent Radiation Protection Program Review; August 28, 2009

Morris Operation Instruction MOI-702; MO Internal Audits, Revision 9; June 30, 1997

Morris Operation Instruction MOI-717; Corrective Action Reporting and Management, Revision 4; April 20, 2006

Morris Operation Instruction MOI-606; Morris Operations (MO) Operations Training Program, Revision 15; June 21, 2002

Morris Operation Instruction MOI-155; MO Training, Revision 7; June 24, 2002

Morris Operation Instruction MOI-102; Organization, Revision 20; November 24, 2009

Morris Operation Instruction MOI-904; Safety Committee, Revision 13; October 20, 2010

Safety Committee Meeting Minutes; January 13, 2009

Safety Committee Meeting Minutes; May 7, 2009

Safety Committee Meeting Minutes; March 5, 2010

Safety Committee Meeting Minutes; July 14, 2010

Safety Committee Meeting Minutes; October 6, 2010

GE Morris Operation Preventative Maintenance; Basin Leak Detection; November 4, 2010

NEDO-31955, Morris Operation Emergency Plan; October 20, 2010

Review of Personnel Exposures – December & 4th Qtr 2008; February 4, 2009

Review of Personnel Exposures – December & 4th Qtr 2009; February 2, 2010

Morris Operation Instruction MOI-312; Environmental Monitoring Program; Revision 3; April 9, 2002

2009 Environmental Operating Report; Letter to NRC RIII Regional Administrator; February 12, 2010

Radiation Dosimetry Reports; 1st through 3rd Quarter 2009 and 1st through 3rd Quarter 2010

Site Outside Areas Radiological Survey Map; March 3, 2010

SUPPLEMENTAL INFORMATION (continued)

Morris Operation Instruction MOI-430; 72.48 Applicability Analysis for Changes, Tests, Experiments; Revision 6; October 13, 2005

Morris Operation Instruction MOI-420; Design Control Program; Revision 7; July 23, 1996

Standard Operating Procedure SOP 16-10; Basin Water Analysis – Compliance Test; Revision 15; December 18, 2007

Standard Operating Procedure SOP 16-100; Effluent Water Analysis – Compliance Test; Revision 18; June 27, 2008

SOP 16-100; Effluent Water Analysis Compliance Test Surface Water Data Sheets; January 2010 through August 2010; Revision 18; June 27, 2008

SOP 16-10; Basin Water Analysis Compliance Test Data Sheets; January 2010 through August 2010; Revision 15; December 18, 2007