

December 27, 2006

United States Nuclear Regulatory Commission
Region III Headquarters
2443 Warrenville Road Suite 210
Lisle, Illinois 60532-4352
Attention: Magdalena Gryglak
Reactor Inspector

SUBJECT: IEMA – BUREAU OF NUCLEAR FACILITY SAFETY
Observations of November 27th Emergency Plan Exercises at general
Electric – Morris Facility

Dear Ms. Gryglak,

On November 27, 2006 the Illinois Emergency Management Agency (IEMA)-
Bureau of Nuclear Facility Safety (BNFS) Resident Inspector(s) completed their
observations of the Emergency Preparedness Exercise and Critique at the General
Electric – Morris Facility near Morris, Illinois Per the terms and conditions of the
Memorandum of Understanding (MOU) between the NRC and IEMA-BNFS, the
enclosed inspection/observation report documents our agency's observations
and/or concerns as they relate to emergency preparedness activities at that facility.

The IEMA-BNFS observation activities were conducted as they relate only to
facility emergency preparedness and overall nuclear safety actions as they pertain
to the protection of the health and safety of the general public. The inspector(s)
reviewed selected licensee procedures and scenarios, observed licensee emergency
response activities, and attended the licensee post-drill debriefings.

Based on the results of the inspector's observations, IEMA-BNFS is forwarding to
you for your information, a compendium of those observations.

If you have any questions, please contact me at your earliest convenience.

Sincerely yours,



Richard J. Zuffa
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Docket No. 72-1
License No. SNM-250050-295
Enclosure(s): Inspection Report 06GEMO-4QTR-001

cc wo/encl: A.C. Settles, Chief Division of RICC
J.L.Roman, IEMA-BNFS RI-Coordinator

**IEMA INSPECTION REPORT SUMMARY
06GEMO-4QTR-001**

STATION:	GE Morris Operations
DOCKET NO:	72-1 License No. SNM-2500
IEMA INSPECTOR:	Jeffrey L. Roman
INSPECTION DATES:	November 27, 2006
INSPECTION HOURS:	10 Hours
INSPECTION SUBJECT:	Safety Inspection of the GE Morris Operation Emergency Drill
VIOLATIONS:	None
UNRESOLVED ITEMS:	None
OPEN ITEMS:	None
FOLLOW-UP ITEMS:	None
ITEMS CLOSED:	None

Report Details

Summary of Plant Status

General Electric (GE) Morris Operation is an Independent Spent Fuel Installation (ISFI). The facility was originally constructed as a pilot irradiated fuel processing operation. During cold testing of the facility in 1971, GE applied for and was granted Special Nuclear Material (SNM) License SNM-1265, Docket 70-1308 to receive spent fuel from commercial nuclear power plants. The first fuel was received by the facility in 1972. In 1974 GE suspended its efforts to operate the reprocessing facility and applied for a spent fuel storage license. The NRC staff reissued Special Nuclear Material License SNM-1265 as a storage license for a full term of 5 years in 1974. GE applied for renewal of the SNM license in 1979. During the NRC review, the staff noted that spent fuel storage at an ISFSI was specifically covered under 10 CFR Part 72. The NRC requested that GE revise its license renewal request to conform to the requirements of 10 CFR Part 72. The NRC issued Special Nuclear Material License SNM-2500, Docket No. 72-1 in 1982, for a period of 20 years. The NRC renewed the license in 2004 for an additional 20 years. The license expires at midnight on May 31, 2022. Fuel was last received at the facility in 1989.

1 Independent Spent Fuel Storage Installation Safety

1EP6 Emergency Preparedness Drill Evaluation (IEMA Keystone: Reactor Safety)(71114.06)

a. Inspection Scope

The inspector observed a GE Morris Operations Emergency Response drill.

b. Observations and Findings

On November 27, 2006, the GE Morris Operations staff conducted an emergency drill to demonstrate its ability to manage an emergency at the GE Morris Operations facility.

The overall objective of the drill was to evaluate the response of personnel and the effectiveness of existing instructions and procedures in demonstrating the proper management of emergency situations. During the drill the following were the objectives:

1. The watchman takes appropriate actions in response to a contaminated injured man,
2. The Watchman takes appropriate mitigating actions,

3. The Watchman (or Emergency Coordinator) demonstrates notifying emergency response agencies,
4. The event circumstances are evaluated and documented on the Emergency Response Worksheet,
5. The conditions appropriately classified, categorized and communicated as needed,
6. The emergency terminated and the results critiqued and documented.

Drill Initial Conditions

A worker was requested to carry a 1-gallon sample of basin water from the Basin Area to the Radiation Safety Officers (RSO's) office. The sample was to be sent offsite for analysis.

Event Scenario with comments

- At approximately 10:30 AM the RSO activated the drill by informing the person carrying the sample bottle that he/she has slipped off a step, fell, and hit their head. The sample bottle fell to the floor and the cap came off creating a spill. The worker blacked out for about 1 minute. When coming to the worker heard ringing in their ears and their head hurt. When he stood up, he felt light-headed/off-balance and nauseated. The worker is wet from the spilled water.
- At 1035 the injured person called the Central Alarm Station (CAS) to report the injury.
- At 1036 the security guard makes a site announcement of the injury, calls the designated Emergency Coordinator (EC) and then calls for an ambulance. He includes that the person may be contaminated.
- Two people arrive at the scene of the injured person. One begins attending to the injured person and the other begins taking radiological surveys.
- At 1037 the Emergency Coordinator (EC) arrives at the CAS and assumes command of the event from the security guard. He begins looking at the Emergency Procedure. His office is in close proximity to the CAS and allows him to arrive quickly.
- At 1040 the EC calls Morris Hospital to report a contaminated injured person will be transported to the hospital.
- At 1048 the ambulance arrives onsite. At this time a drill time out is declared to allow security to perform a search of the ambulance. If this had been an actual event the site personnel stated the ambulance would have been permitted to drive onto the site without being searched.

- At 1050 the time out ends. The ambulance is allowed to enter the site property. A security guard supplies the ambulance workers with dosimeters.
- At 1050 the EC classifies the event as an Alert due to a contaminated injured person being transported offsite.
- At 1053 the EC calls the scene of the injury and obtains an update on the injury. He also obtains the contamination levels on the injured person.
- At 1053 the EC completes the Event Notification Worksheet and calls IEMA with the emergency notification.
- At 1056 the EC begins looking at the procedure for a spill.
- At 1056 the EC declares an Unusual Event due to the spill and makes a site announcement.
- At 1057 the Coal City Fire Chief arrives at the site. He was not expected to arrive but came to the scene to see how his people were performing.
- At 1100 the health physics person who had been at the scene of the injury informs the EC he is going with the injured person to the hospital.
- At 1105 the ambulance leaves the site.
- At 1106 the drill is terminated however the EC continues with the procedures he is currently performing.
- At 1107 the EC calls the NRC to inform them of the Alert and the Unusual Event. He also informs them the event is terminated.
- At 1110 the EC calls the hospital to inform them the drill is terminated.
- At 1112 the EC calls IEMA to terminate the Alert and Unusual Event and to tell them the drill is terminated.
- At 1115 a site announcement is made that the drill is terminated.

Licensee critique

The drill evaluators held a critique following the drill. The following items were identified:

- When the injured person called the CAS, he did not state he needed an ambulance but the security officer called 911 and requested one. This appears to be a case of a player anticipating the drill scenario.
- Contamination control was weak. One of the responders performed a survey and roped off the area. Later on numerous occasions he

entered and exited the area by crossing under the rope. If contamination had been present he would have spread it to the surrounding area. The gurney used to transport the injured person was not covered with plastic prior to placing the injured person on it. The person was wet from the spilled water and would have contaminated the gurney and possibly the ambulance.

- The first responders arrived without a first aid bag. After identifying the extent of the injuries, a first aid bag had to be located. The bag was located quickly but the responder should have taken one with him to the scene.
- The ambulance personnel did not know prior to arriving onsite that the injured person was contaminated. It was stated that during an actual event the site would have radio contact with the ambulance through the Grundy County Dispatchers and the crew would have been informed that the person was contaminated.
- The communication between the site personnel and the ambulance crew was poor. The ambulance crew was not informed of the areas on the body the individual was contaminated. The ambulance crew did not know the individual was wet with contaminated water until they noted the wet shirt and asked about it.

The Radiation Safety Officer (RSO) stated that additional training would be given to the workers on contamination control and health physics practices. He observed the worker who attended the injured person and said it was readily apparent to him that there was a training issue. Overall the licensee evaluated the drill as satisfactory with additional training needed.

Inspector Observations

The inspector and the NRC inspectors had the same observations as the licensee along with one additional observation. The EC declared an Alert and later also declared an Unusual Event. While the entry conditions for both were met, the usual method is to only declare the higher classification. Once the Alert was declared there was no reason to also declare the Unusual Event. In declaring both classifications the EC added some confusion to the event. When this was discussed with the licensee at the Exit Meeting, the RSO agreed with the observation. He stated his expectation was that only the Alert would be declared. The RSO stated he would be preparing changes to the Emergency Plan procedures to give better guidance in this area. In addition when asked by the inspector, the RSO stated an Unusual Event would not normally be declared for a spill of 1-gallon of contaminated water.

c. Conclusions

The GE Morris Operation Emergency Response drill held on November 27, 2006, was declared to be overall satisfactory with additional training needed in contamination control and health physics practices. The inspector agrees the drill was satisfactory. The problems that were noted in contamination control and health physics practices appear to be from the workers not working around contamination on a regular basis. The radiation and contamination levels of the facility are very low. Additional training should help improve their performance.

The EC classifying both an Alert and an Unusual Event was confusing and should not have happened. It appeared to me the EC was trying to make sure he did not overlook anything. Changing the procedures so it is clear the EC does not declare an Unusual Event when an Alert is already in effect should correct the problem.

Overall the drill was performed satisfactory. The facility staff was able to demonstrate they could respond to an event to ensure the safety of the public and facility employees.

LIST OF BASELINE INSPECTIONS PROCEDURES

The following inspection procedures were referenced to perform the inspections.

Inspection Procedure

<u>Number</u>	<u>Title</u>	<u>Report Sections</u>
60855	Operation of an Independent Spent Fuel Storage Installation	1EP6
71114.06	Emergency Preparedness Drill Evaluation	1EP6

List of Acronyms used in Report

CAS	Central Alarm Station
CFR	Code of Federal Regulation
EC	Emergency Coordinator
GE	General Electric
IEMA	Illinois Emergency Management Agency
ISFI	Independent Spent Fuel Storage Installation
NRC	Nuclear Regulatory Commission
RSO	Radiation Safety Officer
SNM	Special Nuclear Material