UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

January 30, 2012

EA-12-013

Ms. Nicole Holmes
Chief Operating Officer and Facility Manager
Global Nuclear Fuel – Americas, L.L.C.
P.O. Box 780, Mail Code J20
Wilmington, NC 28402

SUBJECT: GLOBAL NUCLEAR FUEL – AMERICAS, L.L.C. - NRC INTEGRATED INSPECTION REPORT NO. 70-1113/2011-005

Dear Ms. Holmes:

The U.S. Nuclear Regulatory Commission (NRC) conducted announced, routine inspections from October 1 through December 31, 2011, at your Wilmington, North Carolina facility. The enclosed report presents the results of these inspections. The purpose of the inspections was to perform a regional initiative inspection of plant operations, to evaluate your biennial emergency preparedness exercise, and to follow-up on previously identified issues. The inspection and evaluation were performed to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection and evaluation, the findings were discussed with members of your staff at exit meetings held on October 27, 2011 and January 18, 2012.

The inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspection consisted of facility walk-downs, selective examinations of relevant procedures and records, interviews with plant personnel, and plant observations. Throughout the inspection, observations were discussed with your managers and staff.

The emergency exercise evaluation was to determine whether you had an effective emergency response program which, as demonstrated by your biennial exercise, was able to protect the health and safety of the public, plant workers, and environment.

Based on the results of this inspection, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. This violation is being treated as a Non-Cited Violation (NCV), consistent with Section 2.3.2 of the Enforcement Policy. The NCV is described in the subject inspection report. If you contest the violation or significance of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to: (1) the Regional Administrator, Region 2 and (2) the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

In addition, based on the results of this inspection, an apparent violation was identified and is being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html. This apparent violation, discussed in Paragraph C.1.f of the enclosed inspection report, involved the failure to adhere to Section 5.3.2.5 of the license application, "Criticality Warning Systems (CWS) Design and Performance Requirements." The circumstances surrounding this apparent violation, the significance of the issues, and our evaluation of your corrective actions were discussed with members of your staff during a teleconference on January 18, 2012. As a result, it may not be necessary to conduct a predecisional enforcement conference in order to enable the NRC to make an enforcement decision.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either: (1) respond to the apparent violation addressed in this inspection report within 30 days of the date of this letter or (2) request a predecisional enforcement conference. If a conference is held, it will be open for public observation. The NRC will also issue a press release to announce the conference. Please contact Mr. Marvin Sykes at (404) 997-4629 within seven (7) days of the date of this letter to notify the NRC of your intended response.

If you choose to provide a written response, it should be clearly marked as a "Response to An Apparent Violation in Inspection Report No. 07001113/2011-005; EA-12-013, and should include for the apparent violation: (1) the reason for the apparent violation, or, if contested, the basis for disputing the apparent violation; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance will be achieved. Additionally, your response should include your assessment of the risk significance of the event. In presenting your corrective actions, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violation. The guidance in NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," included on the NRC Web site may be helpful. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a predecisional enforcement conference.

In addition, please be advised that the number and characterization of the apparent violation described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In addition, since you identified the violation, and based on our understanding of your corrective actions, a civil penalty may not be warranted in accordance with Section 2.3.4 of the Enforcement Policy. The final decision will be based on your confirming on the license docket that the corrective actions previously described to the staff have been or are being taken. In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from

the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. To the extent possible, your response should not include any personal privacy or proprietary, information so that it can be made available to the Public without redaction.

If you have any questions, please call me at (404) 997-4629.

Sincerely,

/RA/

Marvin D. Sykes, Chief
Fuel Facility Inspection Branch 3
Division of Fuel Facility Inspection

Docket No. 70-1113
License No. SNM-1097

Enclosure:
1. NRC Inspection Report

cc w/encl:
Scott Murray, Manager
Facility Licensing
Global Nuclear Fuels – Americas, L.L.C.
Electronic Mail Distribution

Lee Cox, Chief
Radiation Protection Section
N.C. Department of Environmental
Commerce and Natural Resources
Electronic Mail Distribution

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Radiation Protection Section
N.C. Department of Environmental
Commerce and Natural Resources
Electronic Mail Distribution

Distribution w/encls:
M. Sykes, RII
M. Thomas, RII
O. López, RII
R. Johnson, NMSS
N. Baker, NMSS
S. Sparks
R. Rodriguez, NMSS
PUBLIC

√ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE √ NON-SENSITIVE

ADAMS: √ Yes ACCESSION NUMBER: ML12030A026 √ SUNSI REVIEW COMPLETE √ FORM 665 ATTACHED

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NAME	MCrespo	CRivera	MRomano	CTaylor	SSparks	CEvans	MThomas
DATE	1/24/2012	01/30/2012	01/30/2012	01/30/2012	1/25/2012	1/25/2012	01/30/2012
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U.S. NUCLEAR REGULATORY COMMISSION
REGION II

Docket No.:	70-1113
License No.:	SNM-1097
Report No.:	70-1113/2011-005
Licensee:	Global Nuclear Fuel - Americas, LLC
Location:	Wilmington, North Carolina
Dates:	October 24 through 27, 2011
Inspectors:	M. Crespo, Senior Fuel Facility Inspector (Sections A, B, and C) C. Taylor, Senior Project Inspector (Section B) M. Romano, Fuel Facility Inspector (Section B) C. Rivera, Fuel Facility Inspector-in-Training (Section A, B. and C)
Approved by:	M. Sykes, Chief Fuel Facility Branch 3 Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

Global Nuclear Fuel - Americas, LLC
NRC Inspection Report No. 70-1113/2011-005

This quarterly integrated inspection report documented a regional initiative, announced, operations inspection and an evaluation of your biennial emergency preparedness exercise. The inspections were conducted by NRC regional inspectors during normal shifts and to follow-up on previously identified issues. During the inspection period, normal production activities were ongoing. These routine, announced inspections consisted of a selective examination of procedures and representative records, observations of activities, walkdowns of items relied on for safety, and interviews with personnel.

Operational Safety

- The licensee adequately implemented IROFS and their associated management measures to ensure they were able to perform their intended safety function. An apparent violation was identified for the delay in the criticality warning system annunciation. A Non-Cited Violation was identified for the failure to properly analyze a potential accident sequence involving a buildup of hydrogen from hydrogen piping near uranium storage areas.

Evaluation of Exercises and Drills

- The inspectors determined that the exercise scenario adequately tested licensee emergency procedures as well as facility and off-site responders to protect the health and safety of the public. However, deficiencies were observed in the protection of plant workers in the following areas: access control, radiological monitoring, contamination control, and the use of personnel protective equipment. In response to the poor performance in these areas, the licensee identified these issues in their corrective action program. The inspectors' review of corrective actions taken to improve these deficiencies was identified as an inspector follow-up item 70-1113/2011-005-01, Verify Corrective Actions for Biennial Exercise on October 26, 2011.

Attachment:
List of Persons Contacted
List of Items Opened, Closed, and Discussed
Inspection Procedures Used
List of Acronyms
List of Documents Reviewed

REPORT DETAILS

Summary of Plant Status

Global Nuclear Fuel – Americas (GNF-A), LLC manufactures uranium dioxide (UO_2) powder, pellets, and light water reactor fuel bundles at its Wilmington, NC facility. The facility converts uranium hexafluoride (UF_6) to UO_2 using a Dry Conversion Process (DCP) and performs UO_2, gadolinium pellet and fuel fabrication operations.

A. Safety Operations

1. Plant Operations, Regional Initiative – Integrated Safety Analysis Milestone Review (IP 88020)

   a. Inspection Scope and Observations

   The inspectors reviewed the integrated safety analysis (ISA) summary and licensee operating procedures for selected portions of the dry conversion process (DCP). The inspectors performed area walk-downs, in which process operations were observed and the existing items relied on for safety (IROFS) were evaluated.

   The inspectors walked down sections of the powder handling area, specifically nodes 204, 205 and 206 and verified that IROFS were identified and operable at each operating station. The inspectors observed the activities of the control room operators and noted that they were knowledgeable of the safety controls and their responsibilities regarding those controls.

   The inspectors reviewed management measures and supporting documentation for designated IROFS to verify that safety controls were available and reliable. The inspectors reviewed functional test instructions, completed tests, and inspection records for the reviewed IROFS. The inspectors noted that functional tests were performed at the required frequency and that instructions contained the appropriate amount of detail to perform the test.

   b. Conclusion

   The licensee adequately implemented IROFS and their associated management measures to ensure they were able to perform their intended safety function. No significant findings were identified.

B. Facility Support

1. Evaluation of Exercises and Drills (IP 88051)

   a. Inspection Scope and Observations

   Section 7.3.1 of the Radiological Contingency and Emergency Plan (RC&EP) required the licensee to conduct a biennial exercise. The inspectors reviewed the exercise scenario and objectives for adequacy in testing the onsite response capability. The

effectiveness of the licensee's critiques to self identify areas of improvement and the mechanism for ensuring that deficiencies were identified and corrected was also reviewed.

The inspectors reviewed the exercise scenario and discussed the exercise objectives with licensee personnel prior to the exercise. The scenario and associated messages were adequate and provided exercise participants with conditions to demonstrate several aspects of the RC&EP and emergency procedure implementation. The emergency exercise involved a failure of two IROFS that caused a heated UF_6 cylinder to rupture during a fork lift truck accident within the controlled area access (CAA). As a result of the accident, a UF_6 plume release was simulated to the environment and a Site Area Emergency was declared.

The inspectors observed and evaluated the licensee's graded biennial exercise conducted on October 26, 2011. Prior to the start of the exercise, the inspectors toured the plant to verify the licensee had not pre-staged equipment or personnel in anticipation of the exercise. The exercise started at 9:00 a.m. local time when a security guard notified the control room of the simulated accident. The inspectors observed the quality of drillsmanship by licensee participants and assessed the effectiveness of visual aids that were used by players during the course of the exercise. Inspectors observed licensee response during the exercise at the Emergency Control Center (ECC), the control room, and at the scene of the simulated accident. The inspectors attended several licensee meetings after completion of the exercise that included exercise debriefs and critiques, a controller briefing, and an exercise evaluation conference that included off-site participants.

Control Room and Emergency Control Center Observations

At the start of the emergency exercise, the manager along with the shift operators in the control room promptly assessed the accident scenario, analyzed the plant condition, and classified the event. The event was classified as an Alert in accordance with the Emergency Plan. The ECC was activated at the initiation of the exercise and was fully staffed in accordance with the Emergency Plan. After the ECC activation, and as the exercise progressed, the Emergency Director continued to assess the accident and plant conditions. As conditions deteriorated, the event classification was changed from Alert to Site Area Emergency in accordance with the Emergency Plan. The inspectors verified that the protective action recommendation implemented by the ECC was appropriate for the accident scenario and in accordance with the Emergency Plan. The inspectors observed an effective interface between the licensee and offsite response groups to mitigate the accident and protect the health and safety of plant workers and the public. The inspectors verified that the initial off-site notifications were within the time period specified in the Emergency Plan and were adequate in content. The inspectors verified that the on-site communications to the occupational workers were consistent with the protective action recommendations implemented by the ECC. The occupational workers performed shelter-in-place and personnel accountability after a site-wide announcement was made. The Emergency Director maintained adequate command and control of the ECC. The Emergency Director participated in frequent ECC briefings with his staff and Incident Commander (IC).

The inspectors reviewed the Radiological Assessment System for Consequence Analysis (RASCAL) software off-site dose assessment results calculated by the dose assessor in the ECC. The inspectors verified that the limiting hazard was identified and utilized by the dose assessor and ECC staff. The limiting health and safety hazard in the scenario was the chemical aspects from the hydrogen fluoride (HF) plume and not the radiological effects of uranium. The inspectors observed the pre-job briefings and issuance of the radiological protection team to measure air concentrations for HF and uranium. The dose assessment and radiation survey results were utilized by the Emergency Director during the assessment of the accident scenario. However, inspectors observed that results from the environmental and radiological monitoring teams were almost delayed one hour due to poor coordination from the ECC to the incident command regarding expectation from the environmental monitoring teams.

Incident Scene Observation

The inspectors observed the licensee response to the incident scene to determine if the actions taken were protective of the workers, public and the environment. The inspectors noted that the emergency response organization arrived at the scene in a timely manner. The emergency response organization properly established the command post upwind after assessing the area. The inspectors also observed during the exercise that the IC established an effective unified joint command post between the licensee and the offsite agencies. The emergency responders performed all the medical assessments necessary to ensure that personnel were physically able to respond to the situation in an efficient manner. The command post successfully prioritized the large number of actions that were being asked of the emergency responders to avoid additional incidents or injury.

The inspectors observed the performance of the IC and the response team during the exercise and determined that the team's actions would have protected the public. However, protection of plant personnel and worker safety was deficient in some areas. The inspectors observed poor access control to the incident scene, in that the area was not adequately blocked or cordoned which allowed uncontrolled access into those areas. This issue was identified in the past emergency exercise conducted in 2009. In addition, the inspectors noted that the environmental and radiological teams, dispatched from the ECC, failed to check-in with and obtain directions from the IC. Subsequently, these teams entered a contaminated portion of the scene without the appropriate personnel protective equipment and contaminated themselves.

Inspectors also observed emergency responders entering the incident area using Level A protective clothing, with a backup team ready to respond if needed. However, once the responders entered the contaminated area, they encountered problems with the Level A protective clothing. At the scene, the Level A suits fogged up, reducing the visibility of the responders such that they could not read the displays for some of the instruments they were using. The Level A suits also hindered communications between the responders and between the responders and the command post. The decontamination of the responders was performed in an established decontamination area. However, the radiation technicians assisting in the decontamination of the response team had inadequate personnel protective equipment and became contaminated themselves in attempting to assist the responders out of the Level A suits.

Critique and Assessment

As required by the RC&EP, the licensee conducted a critique immediately following the exercise. During the critique, exercise players, controllers, offsite responders, observers, and evaluators provided comments regarding areas needing improvement. Several suggestions and items were identified for improving the response to the simulated accident including the following items also identified by the NRC evaluators as requiring corrective actions: (1) Inadequate access control of the incident area would have resulted in several workers traversing the incident area and possibly becoming contaminated or experiencing respiratory problems. This was a repeat issue identified in the 2009 exercise; (2) Inadequate personnel protective clothing for the decontamination team at the staging area would have resulted in additional contamination of the decontamination team; (3) Failure of environmental and radiological teams to check in with the IC would have resulted in teams traversing through the plume would have resulted in the teams becoming contaminated and possibly experiencing respiratory problems; (4) Delay of real time environmental data to ECC by the environmental teams could have delayed recommended protective actions offsite; and (5) Level A suits fogged up, reducing the visibility of the responders such that they could not read the displays for some of the instruments they were using. The Level A suits also hindered communications between the responders and between the responders and the command post would have resulted in a delay of information to IC and ECC. In response to the poor performance in these areas, the licensee identified these issues as Audit Tracking System Numbers 3399 and 3624 in the licensee's corrective action program. The inspectors' review of corrective actions taken to improve these deficiencies was identified as an inspector follow-up item (IFI) 70-1113/2011-005-01, Verify Corrective Actions for Biennial Exercise October 26, 2011.

b. Conclusions

The inspectors determined that the exercise scenario adequately tested licensee emergency procedures as well as facility and off-site responders to protect the health and safety of the public. However, deficiencies were observed in the protection of plant workers in the following areas: access control, radiological monitoring, contamination control, and the use of personnel protective equipment. The licensee identified these performance deficiencies in their corrective action program. The inspectors' review of corrective actions taken to improve these deficiencies was identified as an inspector follow-up item 70-1113/2011-005-01, Verify Corrective Actions for Biennial Exercise on October 26, 2011.

C. Special Topics

1. Follow-up on Previously Identified Issues

a. (Closed) Inspector Follow-up Item IFI 70-1113/2010-04-02: Review the circumstances regarding follow-up supervisor training and actions to address the employee perceptions. The inspectors reviewed the licensee's corrective actions for this event. The licensee had prepared and delivered Safety Culture Work Environment Supervisor Training on May 26, 2011. In addition, during the criticality warning system shutdown in the summer, the licensee re-emphasized the importance of raising issues and actively seeking the input of plant staff. The inspectors reviewed the training materials and

attendance records. The inspectors determined that the training was adequate and that the licensee had completed the required corrective actions for this item. Inspector Follow-up Item (IFI) 70-1113/2010-04-02 is closed.

b. (Closed) Unresolved Item (URI) 70-1113/2011-002-01: Licensee lacks an effective program for detecting and maintaining the proper operation of fire doors. The inspectors reviewed the licensee's inspection program for fire doors and dampers and conducted walkdowns in the DCP area. The inspectors also reviewed the licensee's most recent series of inspections of the fire doors and dampers. Additionally, the inspectors reviewed the licensee's fire hazards analysis for DCP. No significant findings were identified and therefore this item is considered closed.

c. (Closed) Licensee Event Report (LER) 2011-008-0: Integrated Safety Analysis (ISA) – Unanalyzed Condition, Event Number (EN) 47152. The licensee identified that the ISA had not properly analyzed a potential accident sequence involving a buildup of hydrogen from hydrogen piping near uranium storage areas. In response, the licensee instituted several corrective actions including: surveillance checks for hydrogen leaks, began a capital project to re-route the hydrogen piping outside of uranium storage areas, and performed an extent of condition for improperly terminated utility lines. The inspectors walked down the relative piping, verified that the compensatory measure for checking for hydrogen leaks was occurring every shift, and verified that the capital project to re-route the lines out of the building and directly into the furnaces was ongoing. The project was scheduled to be completed before December 31, 2011. The inspectors determined that the licensee's self-identified and corrected failure to meet performance requirements for a hydrogen build-up in uranium storage areas is a non-cited violation in accordance with section 2.3.2.b of the Enforcement Policy, Non-Cited Violation (NCV) 70-1113/2011-005-02. Based on above documented corrective actions, no additional response from the license is required.

d. (Closed) LER 2011-014-0: Item relied on for safety not as described in the integrated safety analysis, EN 47325. The licensee identified that the dry scrap recycle oxidation furnace operations had IROFS that were not correctly described in the ISA. The inspectors walked down the equipment and reviewed the revised quantitative risk analysis (QRA). The inspectors noted that the revised QRA accurately reflected the capacities of the IROFS, and subsequent reduction of protection. However, sufficient controls were still in place to meet the performance requirements. No significant findings were identified, and this item is considered closed.

e. (Closed) LER 2011-016-0: Completion of action plan (Fabrication) milestone. The inspectors confirmed that the licensee was beginning the implementation of the new IROFS identified for the fabrication area, EN 47225. The inspectors also noted that the licensee was augmenting the verification and validations of the new and old IROFS in place. The NRC will evaluate the licensee's implementation of the fabrication area IROFS once it has completed the upgrades. This item is considered closed.

f. (Closed) URI 2011-004-02: Delay in CWS (Criticality Warning System) annunciation. This URI was opened to track the licensee's root cause investigation into the CWS horn activation system delay that GNF-A identified on July 14, 2011. The licensee submitted the investigation report, and the comprehensive list of corrective actions, to the NRC via a letter dated October 14, 2011. The licensee's investigation into the event had determined that a component failure in the horn activation system control panel had

caused the delayed response. The licensee's investigation also evaluated the causes for why the issue was not identified earlier in the year. The investigation identified several root causes that stemmed from a less than adequate nuclear safety culture. In addition, the procedures and supervision of the monthly testing of the CWS were determined to be inadequate to ensure proper performance of the equipment.

Section 5.3.2.5 of the license application, "Criticality Warning Systems (CWS) Design and Performance Requirements," states that the "criticality accident alarm system initiates immediate evacuation of the facility." The significant delay in the CWS activation resulted in the failure to meet this requirement. The NRC has determined that the failure to meet this require constitutes an apparent violation subject to escalated enforcement. This item will be tracked as apparent violation (AV) 70-113/2011-005-03, Delay in CWS annunciation. Therefore, URI 70-1113/2011-004-02, Delay in CWS annunciation, is now considered closed.

The inspectors noted that the licensee had begun to take corrective actions to address the deficiencies identified in safety culture identified from the investigation. In addition, the licensee developed a process excellence program called "Raise the Bar." The objectives of the program were to: 1) Implement compensatory measures; 2) Complete commitments from event root cause analyses; 3) Enhance problem identification and resolution; 4) Simplify procedures and improve requirements flow-down; 5) Strengthen process surveillance and human performance observations; 6) Improve the training program; 7) Engage employees to assure organizational learning; and 8) Communicate internally and externally.

In addition, following the repair of the CWS control panel, the licensee initiated a comprehensive requalification plan to verify that the CWS met regulatory and design requirements. Based on the above and other plant-wide corrective actions discussed in Inspection Report 70-1113/2011-004, the NRC has concluded that the licensee has planned and implemented adequate corrective actions for this issue.

D. Exit Meeting

The inspection scope and results were summarized on October 27, 2011, with Scott Murray, Manager, Licensing & Liabilities, and other members of your staff. In addition, an exit meeting was held on January 17, 2012 to summarize the apparent violation. Although proprietary information and processes were reviewed during this inspection, proprietary information was not included in this report.

SUPPLEMENTAL INFORMATION

1. LIST OF PERSONS CONTACTED

Name	Title
K. Walsh	GNF-A Chief Executive Officer
N. Holmes	GNF-A Chief Operations Officer/Facility Manager
L. Butler	Manager GEH-EHS
J. Reynolds	Manager, Fuels Environmental Health and Safety
S. Murray	Manager, Licensing & Liabilities
P. Ollis	Licensing & Liabilities Engineer
A. Mabry	Radiation Safety Program Manager
M. Venters	Manager, Emergency Preparedness
J. Reeves	Manager, Integrated Safety Analysis
J. DeGolyer	Manager, Criticality Safety Program
F. Beaty	Manager, DCP Area
C. Buddin	Manager, Chemet Lab
M. Grimstead	Manager, Training
J. Hawkins	MC&A
A. Hilton	Manager, FAB
B. MacDonald	Manager, Logistics
R. Martyn	Manager, MC&A
J. Mathews	Manager, Bundle Assembly
B. Hines	Manager, GLE TL Operations
J. Olivier	Manager, GLE Licensing
L. Paulson	GEH Manager, Nuclear Safety Programs
M. Campbell	Manager, Industrial Safety
P. Mathur	Environmental Engineer, EH&S
S. O'Conner	Environmental Engineer, EH&S
C. Davidson	Environmental Specialist, EH&S
M. Dodds	Sr. Criticality Safety Engineer
D. Eghbali	Criticality Safety Engineer
R. Crate	Program Manager, Fuels Growth Projects
P. Jenny	Security
B. Bellamy	Security
J. Zino	Criticality Safety Program

Other licensee employees contacted included engineers, technicians, production staff, and office personnel.

2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Description
IFI 70-1113/2011-005-01	Open	Verify Corrective Actions for Biennial Exercise October 26, 2011

NCV 70-1113/2011-005-02	Closed	The licensee identified that the ISA had not properly analyzed a potential accident sequence involving a buildup of hydrogen from hydrogen piping near uranium storage areas
AV 70-1113/2011-005-03	Open	Delay in CWS annunciation
URI 70-1113/2011-004-02	Closed	Delay in CWS annunciation
IFI 70-1113/2010-04-02	Closed	Review the circumstances of this event and track the licensee actions to address the employee perceptions
URI 70-1113/2011-002-01	Closed	Licensee lacks an effective program for detecting and maintaining the proper operation of fire doors
LER 2011-008-0	Closed	Integrated Safety Analysis (ISA) – Unanalyzed Condition, Event Number (EN) 47152
LER 2011-014-0	Closed	Item relied on for safety not as described in the integrated safety analysis, EN 47325
LER 2011-016-0	Closed	Completion of action plan (Fabrication) milestone, EN 47225

3. INSPECTION PROCEDURES USED

IP 88020	Operations
IP 88051	Evaluation of Exercises and Drills

4. LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
ALARA	As Low As Reasonably Achievable
CAA	Controlled Access Area
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CWS	Criticality Warning System
DCP	Dry Conversion Process
ED	Emergency Director
EN	Event Notification
ECC	Emergency Control Center
EP	Emergency Plan
FMO	Fuel Manufacturing Organization
GNFA	Global Nuclear Fuel – Americas
HF	Hydrofluoric Acid
IFI	Inspector Follow-up Item
IP	Inspection Procedure
IR	Inspection Report

IROFS	Items Relied on for Safety
ISA	Integrated Safety Analysis
LER	Licensee Event Response
NCS	Nuclear Criticality Safety
NRC	Nuclear Regulatory Commission
QRA	Quantitative Risk Analysis
RASCAL	Radiological Assessment System for Consequence Analysis
Rev.	Revision
UF_6	Uranium Hexafluoride
UO_2	Uranium Oxide
URI	Unresolved Item
VIO	Violation

5. PARTIAL LIST OF DOCUMENTS REVIEWED

GNF-A 2011 Biennial Emergency Exercise Scenario dated October 20, 2011
Radiological Contingency and Emergency Plan (RC&EP) revised 2009
QRA-101, Revision 0, UF6 Cylinder Handing dated June 30, 2011
"Graded Fire Hazards Analysis Dry Conversion Process," Revision 0, June 2011
Audit Tracking System reports: 3060, 2946, 2944, 2945, 2947, 2948, 2949, 2950, 3059, 3169, 2559
Gensuite Event ID 388
TOP 8444, "Surveillance of Main Header DA Valves in FMO," Revision 0
QRA 109, "Flammable Gas (DA) Leak Initiating Event Rationale"
QRA 35.3, "DSR Oxidation Furnace Operations," Revision 3
Work Order 354232: Annual vendor drop test of all DCP fire doors
Work Order 379982: Bi-monthly inspection of rollup, personnel, double and fire doors
Work Order 372862: Quarterly inspection of DCP fire doors
Work Order 350530: Annual Calibration "PI 1215 Hatch Valve N_2 Pressure"
Work Order 353533: Annual Calibration "PI 22115 Hatch Valve N_2 Pressure"
Functional Test #1332: "Kiln Outlet Hatch Valves", Test No. 1333.02, Rev 6
Functional Test #1333: "Powder Outlet Cooling Hopper", Test No. 1333.01b, Rev 5