



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931**

February 20, 2002

NMED Number 10942

Global Nuclear Fuels - Americas, L.L.C.  
ATTN: J. D. Fuller, Facility Manager  
Global Nuclear Fuel - Americas, L.L.C.  
P. O. Box 780  
Wilmington, NC 28402

**SUBJECT: NRC INSPECTION REPORT NO. 70-1113/2002-01 AND NOTICE OF VIOLATION**

Dear Mr. Fuller:

This letter refers to the inspection conducted on January 14 through February 1, 2002, at the General Electric facility. The enclosed report presents the results of this inspection.

Based on the results of this inspection, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report.

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed in this Inspection Report (70-1113/2002-01). Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if you choose to provide one) will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR and PARS without redaction. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this letter, please contact us.

Sincerely,

**/RA/**

Leonard D. Wert, Acting Chief  
Fuel Facilities Branch  
Division of Nuclear Materials Safety

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

Enclosures: 1. Notice of Violation  
2. NRC Inspection Report

cc w/encls:  
Charles M. Vaughan, Manager  
Facility Licensing  
Global Nuclear Fuels - Americas, L.L.C.  
P. O. Box 780, Mail Code J26  
Wilmington, NC 28402

Mel Fry, Director  
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OFFICE	RII:DNMS	RII:DNMS	NRC:NMSS	
SIGNATURE	<b>/RA/</b>	<b>/RA/</b>	<b>/RA by telephone/</b>	
NAME	AGooden	DSeymour	LBerg	
DATE	02/14/2002	02/15/2002	02/14/2002	
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO

## NOTICE OF VIOLATION

Global Nuclear Fuels - Americas, L.L.C.  
Wilmington, North Carolina

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

During an NRC inspection conducted January 14-18, 2002, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

License Condition 10 of Special Nuclear Materials (SNM) License No. 1097 requires the licensee to comply with all listed Safety and Safeguards Conditions.

Safety Condition S-1 requires that SNM be used in accordance with statements, representations, and conditions of the License Application dated June 5, 1997; and supplement thereto.

Chapter 5.0, Subsection 5.5.1 (Surveys) of the License Application states in part, personnel contamination surveys for external contamination on clothing and the body are required by personnel when exiting the change rooms. Section 3.9 of the License Application requires that activities be conducted in accordance with properly issued and approved plant practices and procedures. Posted Nuclear Safety Release/Requirement Number 13.11.04 provided the radiological safety requirements for performing surveys.

Contrary to the above, on January 16, 2002, activities were not conducted in accordance with properly issued and approved plant practices and procedures in that two workers exited the men's change room and failed to survey in accordance with posted Nuclear Safety Release/Requirement Number 13.11.04.

This is a severity Level IV violation (Supplement VI).

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in this Inspection Report (70-1113/2002-01). However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region II within 30 days of the date of the letter transmitting this Notice.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because any response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. ADAMS is

accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/ADAMS.html> (the Public Electronic Reading Room). If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 20<sup>th</sup> day of February 2002 at Atlanta, Georgia

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 70-1113

License No.: SNM-1097

Report No.: 70-1113/2002-01

Licensee: Global Nuclear Fuel - Americas, LLC

Facility: General Electric

Location: Wilmington, NC 28402

Dates: January 14 through February 1, 2002

Inspectors: A. Gooden, Health Physicist  
L. Berg, Criticality Safety Inspector, Headquarters

Accompanying Personnel: S. Whaley, Acting Section Chief  
Inspection Section  
Safety and Safeguards Support Branch  
Division of Fuel Cycle Safety and Safeguards, NMSS

Approved By: L. Wert, Acting Chief  
Fuel Facilities Branch  
Division of Nuclear Materials Safety

## EXECUTIVE SUMMARY

### Global Nuclear Fuel - Americas NRC Inspection Report 70-1113/2002-01

This integrated inspection report included a review of the licensee's criticality safety and radiation protection programs by regional and headquarters based inspectors. The inspection involved observation of work activities, a review of selected records, and interviews with plant personnel.

#### **Radiation Protection**

- The external exposure monitoring program was implemented in a manner to maintain doses As Low As Reasonable Achievable (ALARA). Exposures were well below the occupational exposure limits in 10 CFR 20.1201 (Paragraph 2.a).
- Based on exposure data as of December 2001, although internal exposures were higher in calendar year (CY) 2001 when compared to the previous year, exposures were well below the occupational limits (Paragraph 2.b).
- The program for demonstrating that the supplied breathing air system provided air of Grade D quality lacked consistent quality verification (Paragraph 2.c).
- The licensee's postings adequately communicated the potential hazard and/or protective equipment requirements for working in areas (Paragraph 2.d).
- With the exception of one violation involving inadequate personal contamination surveys, the contamination survey program was appropriately implemented to protect workers, and identify potential work areas posing radiation hazards to workers (Paragraph 2.e).
- A violation was identified involving inadequate personal surveys. The inspector observed that two workers failed to meet procedural requirements for personal contamination surveys when exiting the change rooms (paragraph 2.e).

#### **Emergency Preparedness**

- The licensee's actions in response to an unplanned actuation of the criticality warning system were effective and in accordance with procedures. The incident was correctly classified (Paragraph 3).

#### **Criticality Safety**

- Plant operations were being conducted safely and licensee staff exhibited a safety conscious attitude (Paragraph 4.a).
- The licensee identified and resolved risk significant criticality safety issues in a timely manner (Paragraph 4.b).

- The actions of emergency response and operation recovery personnel, and the performance of safety related equipment were adequate to ensure safety following a loss of onsite power event (Paragraph 4.c).
- Licensee corrective actions for a recent reportable criticality safety event were timely and effective, and assured the continued safety of the affected operation (Paragraph 4.d).

Attachment:

Persons Contacted

Inspection Procedures

List of Items Opened, Closed, and Discussed

List of Acronyms

## REPORT DETAILS

### 1. Summary of Plant Status

This report covered two five day periods. During the period, smooth operations were observed with powder, pellet, fuel assembly production, and routine maintenance activities. Two unusual incidents occurred during the period. On January 16, 2002, an unplanned criticality alarm occurred as a result of a circuit board failure to the data acquisition module on a criticality detector unit. The second event was an unexpected loss of offsite power on January 30, 2002. The loss of power was attributed to breaker problems at the plant substation.

### 2. Radiation Protection (83822) (R1)

#### a. External Exposure Control (R1.04)

##### (1) Inspection Scope

The inspector reviewed and discussed with licensee representatives radiation protection procedures, and personnel exposure data to determine if exposures were in compliance with 10 CFR Part 20 limits, and if controls were in place to maintain occupational doses As Low As Reasonable Achievable (ALARA).

##### (2) Observations and Findings

Procedures contained administrative action limits, and dose goals were established to ensure that exposures were less than the occupational limits in 10 CFR 20.1201. Table 1 below displays the maximum assigned exposure data for calendar year (CY) 2000, and projected data for CY 2001. No regulatory or license limits were exceeded. Based on estimated exposure results from the external dosimetry program, no change was anticipated in the maximally assigned deep dose equivalent (DDE) and approximately a nine percent increase was expected in the total effective dose equivalent (TEDE) assigned for CY 2001. Regarding the site collective exposure, a reduction is anticipated in both the DDE (32 percent) and TEDE (17 percent).

**Table 1. Annual Exposures**

Year	Deep Dose Equivalent (DDE)	Shallow Dose Extremity (SDE)	Total Effective Dose Equivalent (TEDE)	Collective TEDE (person-rem)	Committed Effective Dose Equivalent (CEDE)
2000	0.900 rem	<sup>3</sup> N/A	0.92 rem	<sup>2</sup> 114	0.39 rem
<sup>1</sup> 2001	0.900 rem	<sup>3</sup> N/A	1.00 rem	<sup>2</sup> 94	0.49 rem

**Notes:** <sup>1</sup>Exposures are based on air sampling data through December and six months of Thermoluminescent Dosimetry (TLD) data

<sup>2</sup>The collective dose included all monitored personnel

<sup>3</sup>Monitoring results for CY 2000 showed no individual met the limit requiring monitoring. CY 2001 data had not been processed from vendor

The licensee's program for controlling and monitoring external exposures to radiation was appropriately implemented.

(3) Conclusions

The external exposure monitoring program was implemented in a manner to maintain doses ALARA. Exposures were well below the occupational exposure limits in 10 CFR 20.1201.

b. Internal Exposure Control (R1.05)

(1) Inspection Scope

The inspector reviewed controls for assessing internal exposure to verify that administrative and physical controls were in place to maintain dose less than occupational limits.

(2) Observations and Findings

Procedures contained action limits which were set below federal limits to ensure personnel exposures did not exceed occupational limits in 10 CFR 20.1201. Table 1 above presents the maximum assigned committed effective dose equivalent (CEDE). As of December 2001, the maximum assigned exposure (0.49 rem) was approximately 26 percent more than the CY 2000 exposure (0.39 rem). Documentation indicated the average internal dose (0.069 rem per year) for CY 2001 was approximately 17 percent higher than in CY 2000 (0.059 rem per year).

(3) Conclusions

Based on exposure data as of December 2001, although internal exposures were higher in CY 2001 when compared to the previous year, exposures were well below the occupational limits.

c. Respiratory Protection (R1.06)

(1) Inspection Scope

Respiratory protection equipment issuance, storage, maintenance, and training verification was examined for adequacy in assuring that equipment was being properly maintained and obtained by certified users only.

(2) Observations and Findings

One aspect of the licensee's maintenance program involving air quality verification was not proceduralized and consequently, was not performed on a consistent basis to ensure that the air being supplied was Grade D quality. The maintenance program did include frequent changes to the filter cartridges, and calibration of the carbon monoxide monitoring system to ensure that excessive carbon monoxide was not introduced to the

system. The licensee indicated that prior to CY 2000, no air quality verification was done. The inspector reviewed the CY 2000 testing and noted that only three of five supplied air locations had been tested, and the results were Grade D quality air. In response to the inspector's observations, the licensee discussed plans to verify the air quality of any unsampled active supplied air location. In addition, the Respiratory Protection Administrator informed the inspector telephonically on February 5, 2002, that the periodic air quality verification would be formalized procedurally and included in the Industrial Hygiene sampling plan.

(3) Conclusions

The program for demonstrating that the supplied breathing air system provided air of Grade D quality lacked consistent quality verification.

d. Postings, Labeling, Control (R1.07)

(1) Inspection Scope

The inspector reviewed the licensee's program for posting as required by 10 CFR 19.11 to determine if documents were posted in sufficient places to permit individuals engaged in licensed activity to observe them. Several work locations were reviewed to assess the adequacy of contamination control barriers and posting of radiation areas as required by 10 CFR 20.1902. Radiation Work Permits were reviewed to determine the adequacy of the requirements posted for worker protection and the degree to which those requirements were being implemented.

(2) Observations and Findings

The location for postings contained the applicable documents (e.g., NRC Form 3) and/or references to their locations.

All observed work areas involving radioactive material or potentially contaminated material were properly posted. Containers were either labeled or had information stenciled on the container in accordance with requirements. Randomly selected active and closed radiation work permits (RWP) were reviewed for adequacy in providing the appropriate level of protection to workers. No problems were noted when the inspector reviewed site activity at the work location for verification that RWP requirements were being followed by workers.

(3) Conclusions

The licensee's postings adequately communicated the potential hazard and/or protective equipment requirements for working in areas.

e. Surveys (R1.08)

(1) Inspection Scope

The contamination control survey program was reviewed to determine if surveys were effective in the identification of contamination and performed in accordance with procedures.

(2) Observations and Findings

The results disclosed that the routine surveys were adequate in the identification of potentially contaminated areas. Based on interviews and a limited review of documentation, in the event smear results exceeded action limits, actions were taken to decontaminate the area of the smear to acceptable limits.

A violation of licensee procedures occurred on January 15, 2002, when two workers were observed exiting the men's change room, but failed to complete personal contamination surveys in accordance with the Nuclear Safety Release/Requirements (NSR/R 13.11.04) posted at the entrance to the radiation control area. The following observations were made by the inspector when two workers made attempts to perform personal surveys using a meter which increased off scale resulting in an audible alarm: 1) the first worker reset the instrument to background and attempted a second survey which again increased off scale resulting in a second alarm; and 2) the second worker made one attempt to survey then reset the instrument. In both examples, the worker exited the change room without attempting to survey using a different instrument and/or contacting Radiation Protection for assistance. The inspector examined the instrument for operability and determined that the condition of the cable connecting the probe and instrument body may have contributed to the off scale readings.

Chapter 5.0, Subsection 5.5.1 (Surveys) of the license application states in part, personnel contamination surveys for external contamination on clothing and the body are required by personnel when exiting the change rooms. The posted Nuclear Safety Release/Requirement (NSR/R) Number 13.11.04, provided the radiological safety requirements for performing surveys which included contact Radiation Protection for assistance in the event of instrument problems or if there is a noticeable increase in count rate. In response to this finding, the licensee took the following immediate actions: personnel were required to review frisking procedures and acknowledge via signature as having read and understood procedures; contamination surveys were done of the change-room and break area; meetings were held with employees to discuss management expectations and the significance of performing adequate surveys, and the serious consequences to be taken in the event management expectations were not met; increased surveillance by Radiation Technicians in assessing the adequacy of personal contamination surveys; and the long term plan was to evaluate a system which employed hand and foot monitoring.

Although a potential existed for spreading contamination, no elevated levels of contamination were identified during the licensee's survey. The failure to complete personal contamination surveys in accordance with the Nuclear Safety

Release/Requirements (NSR/R 13.11.04) posted at the entrance to the radiation control area was considered a violation (Violation 70-1113/2002-01-01).

(3) Conclusions

With the exception of one violation involving inadequate personal contamination surveys, the contamination survey program was appropriately implemented to protect workers, and identify potential work areas posing radiation hazards to workers.

A violation was identified involving inadequate personal surveys. The inspector observed that two workers failed to meet procedural requirements for personal contamination surveys when exiting the change rooms.

3. **Emergency Preparedness (88050) (F3)**

(1) Inspection Scope

The inspector reviewed the licensee's response to an unplanned criticality alarm.

(2) Observations and Findings

On January 16, 2002, an unplanned criticality alarm activated, resulting in an evacuation of the fuel manufacturing building. Building evacuation, notification of the emergency response organization, and activation of the Emergency Control Center was both timely and effective. The licensee promptly determined the cause for the alarm and initiated necessary actions to ensure the health and safety of the workers. The licensee determined that the alarm resulted from a circuit board failure to the data acquisition module on a criticality detector unit. A candid discussion regarding the response was held immediately after the event.

(3) Conclusions

The licensee's actions in response to an unplanned actuation of the criticality warning system were effective and in accordance with procedures. The incident was correctly classified.

4. **Criticality Safety (IP 88015)**

a. Plant Activities

(1) Inspection Scope

The inspectors asked the licensee nuclear criticality safety (NCS) staff to identify any new criticality hazards introduced by the licensee since the last inspection. The inspectors verified the adequacy of management measures for assuring the continued availability, reliability, and capability of safety significant controls relied upon by the licensee for controlling the criticality risks to acceptable levels. The inspectors conducted walkdowns of plant operations to assure that the licensee was controlling nuclear

criticality hazards for acceptable risks in accordance with regulatory requirements during normal and off-normal conditions, day and other work shifts, and routine and non-routine activities.

(2) Observations and Findings

The inspectors performed walkdowns in the dry conversion process (DCP), pellet shop, and the rad waste tanks. The inspectors observed that operations were conducted safely and in accordance with written procedures. The inspectors interviewed operators regarding dominant risks and controls and determined that the operators and their supervisors understood the risks for their areas and how controls were related to the risks. Operators were able to quickly identify requirements in written procedures in response to specific questions about controls.

(3) Conclusions

Plant operations were being conducted safely and licensee staff exhibited a safety conscious attitude.

b. NCS Inspections, Audits, and Investigations

(1) Inspection Scope

The inspectors reviewed the backlog of licensee identified risk significant criticality safety issues, conditions and root causes to determine if unexpected conditions were being identified, resolved, and corrected, and to determine the effectiveness and timeliness of corrective actions.

(2) Observations and Findings

The inspectors reviewed the Regulatory Issue Tracking System (RegTrack) to determine how criticality safety significant items were being identified and tracked. The inspectors observed that safety significant and/or systemic issues were being identified, that corrective actions were assigned as necessary, that resolution was timely, and that the corrective actions adequately addressed the root causes. The inspectors noted that the RegTrack system identified occurrences of safety issues in addition to criticality safety, and that the system provided an effective, plant-wide management measure for ensuring that engineered and administrative control or control systems were available and reliable to perform their function when needed.

(3) Conclusions

The licensee identified and resolved risk significant criticality safety issues in a timely manner.

c. Loss of Onsite Power Event

(1) Inspection Scope

The inspectors observed licensee emergency responders reacting to a loss of onsite power, and the adequacy of efforts to safely recover.

(2) Observations and Findings

At approximately 9:40 a.m., January 30, 2002, the plant experienced a complete loss of offsite power as a result of breaker problems at the plant substation. Although the plant had the capability to reroute and bypass equipment to connect power directly to the safety load centers, the licensee believed the breaker problems were associated with the power being supplied upstream of the bypass equipment.

The inspectors observed that backup power supplies were available immediately to supply power to essential functions including criticality warning system detectors, process area exhaust ventilation, and the uninterruptible power supply (UPS) system. The inspectors also noted that the emergency diesel generators provided power to several process systems in the DCP to minimize the occurrence of unexpected events associated with operational recovery actions. The inspectors observed that equipment important to safety failed safe, that all processes stopped immediately, and that there were no adverse consequences to either worker and public health and safety or the environment.

At approximately 10:00 p.m., January 30, 2002, plant power was restored, and the licensee commenced recovery actions to bring the production plant back online. The inspectors performed walkdowns of the DCP as recovery actions commenced, and did not identify any safety-related findings.

(3) Conclusions

The actions of emergency response and operation recovery personnel, and the performance of safety related equipment were adequate to ensure safety following a loss of onsite power event.

d. Loss of Moderation Control Event

(1) Inspection Scope

The inspectors reviewed a recent reportable NRC Bulletin 91-01 event to determine if the licensee corrective actions were effective and timely, and that criticality safety is assured.

(2) Observations and Findings

The inspectors reviewed licensee actions in response to NRC Event No. 38395 where samples confirmed the presence of moisture levels above the operational limit of 0.4 percent moisture in the uranium dioxide (UO<sub>2</sub>) cooling hoppers. At approximately

4:30 p.m., October 15, 2001, moisture detection interlocks in the cooling hopper automatically shut down DCP Line 2 in response to detection of higher than normal moisture content. The licensee's DCP is designed to convert uranium hexafluoride ( $UF_6$ ) to  $UO_2$  powder by using a special kiln along with hydrogen gas and superheated steam. The kiln discharges the  $UO_2$  powder to one of two 16 inch diameter cooling hoppers through a pair of isolation valves (outlet hatch control valves) in series. The isolation valves are interlocked such that only one of them can be open at any time. During normal operation, the first isolation valve is open while powder fills the space between the two valves. When the powder reaches a certain level, the control system shuts the first isolation valve and opens the second isolation valve to dump the powder into a cooling hopper. The space between the valves is purged with nitrogen. The isolation valves in conjunction with the nitrogen purging prevent the furnace atmosphere (hydrogen and steam) from leaking into the cooling hoppers. The cooling hoppers gather the  $UO_2$  powder and nitrogen is passed through the hoppers to aid cooling.

Based on subsequent manual moisture sampling, the licensee determined that the moisture content in the Line 2A cooling hopper averaged 1.2 percent, which was above the operational limit of 0.4 percent, but well below the criticality safety limit of 11.2 percent for uniformly dispersed moisture. Licensee investigation into the event identified leaking outlet hatch control valve seats as the mechanism through which superheated steam was permitted to enter the cooling hopper and exceed the operational moisture level.

The inspectors noted that the licensee's corrective actions included replacement of control valve seats, installation of a nitrogen pressure transmitter for trending the performance of the seating surface of the hatch valves, and administrative requirements for operators to verify stable nitrogen pressure during a 35-second hold period when both isolation valves are shut. In the event that stable nitrogen pressure is unable to be maintained for the hold period, the inspectors noted that the licensee would take prompt actions, such as valve replacement/repair, to ensure moderation control is maintained. The inspectors determined that the corrective actions implemented by the licensee in response to the event were adequate to prevent recurrence.

(3) Conclusions

Licensee corrective actions for a recent reportable criticality safety event were timely and effective, and assured the continued safety of the affected operation.

5. Exit Interview

The inspection scope and results were summarized on January 18, and February 1, 2002, with those persons indicated in the Attachment. Although proprietary documents and processes were occasionally reviewed during this inspection, the proprietary nature of these documents or processes has been deleted from this report. No dissenting comments were received from the licensee.

## ATTACHMENT

### 1. **LIST OF PERSONS CONTACTED**

#### Licensee

D. Barbour, Team Leader, Radiation Protection  
R. Bragg, Manager, Chemical Product Line  
\*D. Dowker, Manager, Material Supply  
\*R. Foleck, Program Manager, Facility Licensing  
B. Hines, Dry Conversion Technical Resource  
\*H. Knight, Manager, Emergency Preparedness and Site Security  
\*A. Mabry, Program Manager, Radiation Safety  
#R. Martin, Supervisor, Material Accountability  
\*C. Monetta, Manager, GNF-A, Environmental Health and Safety  
R. Pace, Manager, Facilities  
#L. Paulson, Manager, Nuclear Safety  
W. Peters, Engineer Nuclear Safety  
J. Reeves, Manager, Configuration  
\*R. Roessler, Manager, Facilities and Maintenance  
\*E. Saito, Senior Radiological Engineer  
\*R. Stevens, Team Leader, FMO Maintenance  
#H. Strickler, Manager, Site Environmental Health and Safety

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

\*Attended exit meeting on January 18, 2002

#Attended exit meeting on February 2, 2002

### 2. **INSPECTION PROCEDURES USED**

IP 83822	Radiation Protection
IP 88050	Emergency Preparedness
IP 88015	Criticality Safety

### 3. **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

<u>Item Number</u>	<u>Status</u>	<u>Description</u>
70-1113/2002-01-01	Open/Closed	VIO - Failure to perform personal contamination survey in accordance with requirements (Paragraph 2.e).

**4. LIST OF ACRONYMS USED**

ALARA	As Low As Reasonable Achievable
CEDE	Committed Effective Dose Equivalent
CFR	Code of Federal Regulation
CY	Calendar Year
DCP	Dry Conversion Process
DDE	Deep Dose Equivalent
ECC	Emergency Control Center
NCS	Nuclear Criticality Safety
NSR/R	Nuclear Safety Release/Requirement
RWP	Radiation Work Permit
SDE	Shallow Dose Extremity
TEDE	Total Effective Dose Equivalent
TLD	Thermoluminescent Dosimetry
UF <sub>6</sub>	Uranium Hexafluoride
UO <sub>2</sub>	Uranium Dioxide
UPS	Uninterruptible Power Supply
VIO	Violation