



## INSPECTION REPORT

1. LICENSEE OR CERTIFICATE HOLDER/LOCATION INSPECTED: Global Nuclear Fuel - Americas, L.L.C. P.O. Box 780 Wilmington, NC 28402		2. NRC/REGIONAL OFFICE: U.S. Nuclear Regulatory Commission Region II 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303-8931	
REPORT NO: 2009-007			
3. DOCKET NUMBER: 70-1113	4. LICENSE OR CERTIFICATE HOLDER NUMBER: SNM-1097	5. DATE(S) OF INSPECTION: October 5-8, 2009	
6. INSPECTOR(S): Robert Prince			
7. INSPECTION PROCEDURES USED: 88030			

### EXECUTIVE SUMMARY

#### Summary of Plant Status

The Global Nuclear Fuel - Americas facility converts uranium hexafluoride into uranium dioxide and fabricates fuel assemblies for use in commercial nuclear power reactors. During the inspection period normal production activities were ongoing. This routine, announced inspection included evaluation of the radiation protection program. The inspection involved field observations, review of selected records, and interviews with plant personnel.

#### Radiation Protection (88030)

- The inspector interviewed licensee representatives, reviewed radiation protection procedures, and reviewed personnel exposure data to determine if personnel exposures were in compliance with 10 CFR 20.1201 limits. The inspector noted that personnel exposures for calendar year 2008 were higher than those reported for calendar year 2007. Based on interviews, the inspector found that the higher exposures were attributable to a short-term increase in the number of individuals working within the controlled area during 2008. The need for additional staffing within the controlled area was eliminated and as of October 2009, worker exposures were approximately 30% lower than for the comparable period in 2008. A review of Radiation Safety Committee meeting minutes for calendar year 2009 indicated that projects to reduce personnel exposures have been identified and were in various stages of implementation. The inspector noted that mechanisms were established to track the status of ALARA-related activities by the Radiation Safety Committee. No issues of safety significance were identified.
- Based on interviews, procedural reviews, and observation of plant personnel within the controlled area, the inspector determined that the licensee's monitoring program for internal and external exposure was consistent with regulatory requirements. The program was adequate for the type of operations and work activities performed.
- The inspector verified that the licensee's dosimetry provider was certified by the National Voluntary Laboratory Accreditation Program. The inspector reviewed dosimetry results for calendar year 2008 and determined that the maximum assigned exposure was well below the limits for occupational exposure in 10 CFR 20.1201.

## EXECUTIVE SUMMARY (Continued)

- The inspector observed licensee personnel collecting bioassay samples and evaluated controls to ensure the proper handling, identification, and processing of samples. The inspector observed bioassay procedures performed by laboratory personnel. The inspector discussed the calibration and operation of the kinetic phosphorescence analyzer (KPA) with environmental laboratory personnel and reviewed associated documents. Licensee personnel responsible for providing calibration standards and verified that the KPA system is properly calibrated and maintained. Laboratory personnel described key program elements with the inspector. No issues of safety significance were identified.
- The inspector observed licensee personnel performing the daily calibration and operational check of the whole body counter. The counter is utilized to evaluate internal deposition and quantification of internal uptakes of radioactive material. The inspector reviewed the most recent calibration report for the counter. The inspector noted that the licensee utilizes an outside firm to perform the calibration of the counter. The firm provides calibration and dosimetry services to the nuclear industry and utilizes appropriately calibrated standards and calibration procedures in accordance with recognized standard setting organizations. No issues of safety significance were identified.
- The inspector observed the performance of daily source response and operational checks of radiation monitoring equipment, and functional alarm verification of contamination monitors located at the exit point from the controlled area. Licensee personnel were knowledgeable of the operational check requirements and activities were performed in accordance with approved procedures.
- The inspector reviewed records associated with the calibration of portable survey instruments and hand-and-foot contamination monitors. The inspector reviewed calibration sources for appropriate configuration and confirmed suitability of sources for their intended function. The inspector found that personnel responsible for calibration were knowledgeable of associated procedural requirements. The inspector reviewed selected calibration records for accuracy and completeness. No issues of safety significance were identified.
- The inspector reviewed selected survey results for accuracy and completeness and observed radiological postings within the controlled area and in locations where radioactive material was stored or utilized. No issues of safety significance were identified.

### Exit Meeting Summary

- The inspection scope and results were summarized on October 8, 2009, with Mr. Sean Fuller and members of his staff. No dissenting comments were received.

### Key Points of Contact

<u>Name</u>	<u>Title</u>
A. Mabry	Radiation Safety Program Manager
B. Keenan	Radiation Protection Program Manager
B. Wells	Chemistry and Environmental Lab
P. D. Ollis	Licensing Engineer, Licensing & Liabilities

### List of Items Opened, Closed, Discussed

None