

SAFETY AND COMPLIANCE INSPECTION REPORT

1. LICENSEE OR CERTIFICATEE/LOCATION INSPECTED:

Westinghouse Electric Corporation
Commercial Nuclear Fuel Division
Columbia, SC 29250

2. NRC/REGIONAL OFFICE:

**U.S. Nuclear Regulatory Commission
Region II
61 Forsyth Street, Suite 23T85
Atlanta, GA 30303**

REPORT NO: 2008004

3. DOCKET NUMBER(S):

70-1151

4. LICENSE OR CERTIFICATEE NUMBER:

SNM-1107

5. DATE(S) OF INSPECTION:

June 16-20 & 23-27, 2008

6. INSPECTION PROCEDURE(S) COMPLETED: 88020, 88045 and 88050

LICENSEE OR CERTIFICATEE:

The inspection was an examination of the activities conducted under your license or certificate as they related to safety and/or safeguards and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license or certificate. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation by the inspectors. The inspection findings are as follows:

- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. Reported events reviewed.
- 4. The violations, specifically described to you by the inspectors as non-cited violations, are not being cited because they were non-repetitive, licensee-identified, and corrective action was being taken, and the remaining criteria in the NRC Enforcement Policy to exercise discretion were satisfied.
- 5. During this inspection certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.
(Violations and Corrective Actions)

Statement of Corrective Actions

I hereby state that, within 30 days, the actions described by me to the inspectors will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

Title	Printed Name	Signature	Date
NRC INSPECTORS	M. Crespo, A. Gooden, S. Subosits, and P. Startz	/RA/	7/25/08

**DOCKET FILE INFORMATION
SAFETY AND COMPLIANCE INSPECTION REPORT**

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3. DOCKET NUMBER(S): 70-1151	4. LICENSE OR CERTIFICATEE NUMBER: SNM-1107	5. DATE(S) OF INSPECTION: June 16-20, & 23-27, 2008	
6. INSPECTORS(S): Stephen Subosits, Alphonsa Gooden, Manuel Crespo, Gena Woodruff (In-training), Sandra Mendez-Gonzalez (In-training), Paul Startz (In-training)			
7. INSPECTION PROCEDURES USED: 88020, 88045 and 88050			

SUPPLEMENTAL INSPECTION INFORMATION

EXECUTIVE SUMMARY

Summary of Plant Status

The Westinghouse Facility fabricates low-enriched (less than 5% U235) uranium fuel into fuel assemblies for use in commercial light water reactors. This routine, announced inspection evaluated plant operations, effluent control, environmental monitoring, and emergency preparedness.

Effluent Control and Environment Monitoring (IP 88045)

- The inspectors verified that no significant environmental program or procedure changes occurred since the last inspection. Surface water and air samples were properly monitored, analyzed, and evaluated. Internal audits and audits of the third party laboratory were adequate. The environmental monitoring program was implemented in accordance with license requirements. Measurement procedures were adequate. Procedures for collection of samples were sufficiently detailed. Effluent releases were well below regulatory limits.
- The inspectors noted that the licensee had addressed the issue regarding condensate build up in the flow meter for the incinerator stack air sampler. However, the licensee was still attempting corrective actions to address a similar issue with the calciner stack.

Emergency Preparedness (IP 88050)

- During the review of the Site Emergency Plan maintenance and implementation activities, the inspectors identified a violation with two examples for failure to implement the Site Emergency Plan (SEP) requirements:
 - (a) Records of incidents and Post Incident Analyses required by Sections 8.1 and 4.25.3 of the SEP for each implementation of the SEP in response to events in 2008 were not retained; (VIO 70-1151/2008-004-01 Example a) and
 - (b) From January 23, 2004, the licensee had not formally reviewed and updated the SEP as required by Section 7.5. (VIO 70-1151/2008-004-01 Example b)

The licensee took prompt actions to initiate a review of the SEP and assigned corrective actions to ensure the appropriate records were generated following an incident, drill, and/or actual event. (Issue Report 08-182-C004.01)

Executive Summary Continued

Emergency Preparedness (IP 88050) (Cont.)

- The inspectors reviewed training documentation for members of the emergency response organization and conducted walkthroughs with security personnel and individuals designated as backup Emergency Directors. No problems were noted and personnel examined were trained in accordance with Plan requirements.
- The inspectors interviewed the offsite medical support contacts and reviewed documentation (agreement letters, meeting minutes, and training records) in support of the offsite interface. Based on interviews and documentation the licensee was maintaining an effective interface with offsite organizations.
- Emergency kits were inventoried and operational checks performed on radiation detection instruments, air sampling equipment, self-contained breathing apparatus, and other protective equipment for responding during radiation events. Two radiation detection instruments were replaced in emergency kits due to erratic responses that were obtained. All remaining equipment performed as designed. Since the last inspection of this area, enhancements were made by the licensee to include ammonia detectors and state of the art self-contained breathing apparatus equipment with increased air capacity. In addition, the licensee was installing the capability for remote valve closure to prevent a liquid release from the plant to the environment.
- The inspectors identified a violation for failure to have the National Weather Service verify the operability of the meteorological station semiannually and calibrate the station biennially in accordance with SEP Section 6.5.1. A review of available work orders for 2006, 2007, and 2008 indicated one maintenance action was undertaken each year. The 2006 record indicated a calibration was completed, but no data was recorded. The 2008 record indicated the unit was operable but out-dated, and therefore, was not calibrated. (VIO 70-1151/2008-004-02)
- The independent audit was both a performance-based audit involving an evaluation of the July 11, 2007 emergency exercise, and a compliance-based audit of key areas of the program completed during February 2008. Audit findings from the exercise were assigned to the Corrective Action Processing system (CAPs).

Plant Operations (IP 88020)

- The inspectors performed facility walkthroughs and observed activities in the following operational areas: vaporization, conversion, calcining, powder packaging, sintering, uranium recovery, waste incineration, and wastewater treatment operations. Housekeeping and contamination control in areas observed were adequate. Production equipment was operated in accordance with procedures and operators performed their duties in a safe manner. The inspectors interviewed operators regarding their knowledge of operating procedures and safety requirements including nuclear criticality safety, radiological safety, chemical safety, and correct use of personal protective equipment. Based on the responses to questioning the inspectors concluded that the personnel interviewed were knowledgeable of operating procedures and the various safety disciplines.
- The inspectors reviewed a select number of safety significant controls (SSCs) on several vaporization chambers including passive controls, local active controls, and DCS software based safety controls. Detailed inspections included: reviews of piping and instrumentation diagrams (P&ID) versus as-built configurations, scheduled maintenance functions, maintenance work order histories, surveillance testing procedures, past surveillance testing documentation, and interviews with control room personnel involved with DCS functional testing. The inspectors determined the as-built configurations conformed with the P&IDs, and that management measures for the SSCs reviewed, including items relied on for safety (IROFS), were adequate to ensure that the controls would be available and reliable to function when needed.

Executive Summary Continued

- Inspectors attended the licensee's morning production meeting. After production issues were discussed the meeting shifted to safety aspects of plant operation. Safety issues included three examples: an operator bumped against some equipment while trying to reach controls; a slip and fall incident in a production area; and a minor acid burn to the scalp of an operator. These safety issues were to be entered into the licensee's corrective action system for further review. The information exchanged at the meeting adequately communicated the status of operations with adequate emphasis on safety-related information.
- The inspectors observed a new uranyl nitrate unloading process. The new process involved the receipt and transfer of nine tanks mounted on a flat bed trailer. Operators performed all activities upon an elevated platform. Inspectors observed a potential failure scenario where a uranyl nitrate leak-spray event could prevent workers from evacuating the elevated platform. Inspectors questioned the licensee about whether they had evaluated this potential failure event and whether they had considered mitigating measures that would ensure that workers could egress from the platform with minimal consequences. Follow-up discussions with licensee safety management indicated that the licensee would likely re-evaluate the issue, although their process hazards analysis determined no intermediate or high consequences could result from the postulated event.
- The inspectors reviewed change control documentation supporting the installation and startup of a new automated sampler in the powder pack process. The sampler provides a sample of powder for moisture analysis to satisfy a nuclear criticality control on moderation. The inspectors also interviewed production operators assigned to this system to determine the extent of their knowledge of how the new system functions, and how the operators interact with the DCS touch-screen monitor. In addition, the inspectors reviewed the completed work order, software and physical testing documentation, the modified operating procedures, and applicable operator training. Based on the responses to questioning given by the operators on operation of the sampler and the change control documentation reviewed, the inspectors determined the change control process was adequately implemented for this modification to plant configuration.

List of Items Opened, Closed and Discussed

<u>Item Number</u>	<u>Status</u>	<u>Type</u>	<u>Description</u>
07001151/2008-004-01	Opened	VIO	a) Records of incidents and Post Incident Analyses required by Sections 8.1 and 4.25.3 of the SEP for each implementation of the SEP in response to events in 2008 were not retained. b) From January 23, 2004, the licensee had not formally reviewed and updated the SEP as required by Section 7.5.
07001151/2008-004-02	Opened	VIO	The inspectors identified a violation for failure to have the National Weather Service verify the operability of the meteorological station semiannually and calibrate the station biennially in accordance with SEP Section 6.5.1.

Executive Summary Continued

07001151/2005-003-01	Discussed	IFI	Review and verify adequacy of the corrective actions taken to resolve exercise weaknesses, including the performance of a remedial exercise. This IFI remains open since during the 2007 exercise the weaknesses from the 2005 exercise were observed to continue.
07001151/2006-007-01	Closed	IFI	(1) Develop formal procedure to perform SCBA monthly inspections. (2) Update mutual-aid agreement with local hospital. (3) Develop formal letter soliciting participation in onsite emergency preparedness training for local law and first responders. (4) Standardize formal training documentation for emergency preparedness organization members and fire brigade. Corrective actions to address each of the noted items had been completed and no further problems or corrective actions were noted.
07001151/2007-002-02	Closed	VIO	Failure to provide or fax an MSDS in a timely fashion to the responders and the hospital for an HF burn employee. Procedure revisions to SEP-001 and SYP-110 included an emergency checklist which required the MSDS sheet be provided to the responders or faxed to the hospital. The inspectors reviewed training documentation and interviewed the medical staff to determine the adequacy of corrective actions. Interviewees were familiar with the procedure changes and the requirements for the MSDS sheets. No problems were noted.
07001151/2007-002-03	Closed	VIO	Failure to train the nurse on the Hazard Communication Plan. The inspectors reviewed training documentation and interviewed the medical staff to determine the adequacy of corrective actions. Interviewees were familiar with the procedure changes, the Hazard Communication, and the requirements for the MSDS sheets. No problems were noted.
07001151/2007-002-04	Closed	IFI	Tracking the licensee's corrective actions from the root cause analysis. The actions committed to and identified by the licensee in the Root Cause Analysis involving training on HF burn protocol, PPE, and standardization of MSDS sheets were completed.

Executive Summary Continued

07001151/2007-002-05	Closed	VIO	Failure to provide the required twelve-months training to Emergency Response Team (e.g., Brigade members and security guard). The inspectors reviewed training documentation for both security guards and fire brigade members in addition to conducting walkthroughs with security force members. All actions as committed by the licensee in the NOV response dated October 18, 2007 were completed. No significant problems were identified.
07001151/2007-002-06	Closed	VIO	Failure to maintain current letters of agreement with the off-site support groups, which are to be reviewed annually and renewed at least every four (4) years or as frequently as needed. With the exception of the agreement letter with the State of South Carolina DHEC, all agreements were current and up to date. Regarding the agreement with the State of South Carolina documentation was available to show that the agreement was being reviewed for acceptance by South Carolina DHEC.
07001151/2007-002-07	Closed	VIO	Failure to perform quarterly checks on emergency equipment, monthly checks on the brigade fire truck, the hazmat vehicles and the equipment locker, and failure to keep the SCBAs within their required air pressure range. The inspectors reviewed documentation for equipment checks covering the period January 2008 to present and performed an operational readiness check of select equipment for fire brigade on board emergency response vehicles. No problems were noted.