

November 15, 2004

Mr. George Vanderheyden  
Vice President - Calvert Cliffs Nuclear Power Plant  
Constellation Generation Group, LLC  
1650 Calvert Cliffs Parkway  
Lusby, Maryland 20657-4702

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT - NRC EVALUATED  
EMERGENCY PREPAREDNESS EXERCISE - INSPECTION REPORT NOS.  
05000317/2004010 AND 05000318/2004010

Dear Mr. Vanderheyden:

On October 5, 2004, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Calvert Cliffs Nuclear Power Plant. The enclosed inspection report documents the inspection findings, which were discussed on October 8, 2004, with yourself and other members of your staff.

The inspection examined 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 inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10CFR2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be 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). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

***/RA by Richard J. Conte Acting for/***

John R. White, Chief  
Security, Emergency Preparedness, and  
Radiological Protection Branch  
Division of Reactor Safety

Docket Nos. 50-317, 50-318  
License Nos. DPR-53, DPR-69

Mr. George Vanderheyden

2

Enclosure: Inspection Report Nos. 05000317/2004010 and 05000318/2004010  
w/Attachment: Supplemental Information

cc w/encl:

M. J. Wallace, President, Constellation Generation  
J. M. Heffley, Senior Vice President and Chief Nuclear Officer  
President, Calvert County Board of Commissioners  
J. M. Petro, Esquire, Constellation Energy Group, Inc.  
J. E. Silberg, Esquire, Shaw, Pittman, Potts and Trowbridge  
Director, Nuclear Regulatory Matters  
R. McLean, Manager, Nuclear Programs  
K. Burger, Esquire, Maryland People's Counsel  
State of Maryland (2)  
D. Hammons, RAC Chair, FEMA, Region III

Mr. George Vanderheyden

3

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U. S. NUCLEAR REGULATORY COMMISSION REGION I  
REGION I

Docket Nos: 50-317, 50-318

License Nos: DPR-53, DPR-69

Report Nos: 05000317/2004010 and 05000318/2004010

Licensee: Constellation Generation Group, LLC

Facility: Calvert Cliffs Nuclear Power Plant

Location: 1650 Calvert Cliffs Parkway  
Lusby, MD 20657-4702

Dates: October 4-8, 2004

Inspectors: D. Silk, Sr. Emergency Preparedness Inspector, Division of Reactor  
Safety (DRS), (Lead)  
N. McNamara, Emergency Preparedness Inspector, DRS  
J. Benjamin, Reactor Inspector, DRS  
H. Balian, Operations Engineer, DRS

Observers: M. Patel, Reactor Engineer, Division of Reactor Projects (DRP)  
A. Rosebrook, Reactor Inspector, DRS  
J. Krafty, Reactor Inspector, DRS

Approved by: John R. White, Chief  
Security, Emergency Preparedness, and  
Radiological Protection Branch  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000317/2004-010 and 05000318/2004-010; 10/04/2004-10/08/2004; Calvert Cliffs Nuclear Power Plant; Emergency Preparedness Exercise.

This inspection was conducted by region-based inspectors and the resident inspector. No findings of significance were identified using IMC 0609, Significance Determination Process (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

**A. NRC-Identified Findings**

Cornerstone: Emergency Preparedness

None.

**B. Licensee-Identified Findings**

None.

## Report Details

### 1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

#### 1EP1 Exercise Evaluation (71114.01)

##### a. Inspection Scope

Prior to the exercise, an in-office review was conducted of the exercise objectives and scenario submitted to the NRC to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14). This inspection activity represents the completion of one sample on a biennial cycle.

The onsite inspection consisted of the following review and assessment:

- The adequacy of Constellation's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) in 10 CFR 50.47 (b) (4), (5), (9) & (10) which are emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of Constellation's emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities" and Emergency Plan commitments. The facilities assessed were the simulator, Technical Support Center (TSC), Operations Support Center (OSC), and Emergency Operations Facility (EOF).
- Other performance areas besides the RSPS, such as the emergency response organization's (ERO) recognition of abnormal plant conditions, command and control, intra- and inter-facility communications, prioritization of mitigation activities, utilization of repair and field monitoring teams, interface with offsite agencies, and the overall implementation of the emergency plan and its implementing procedures.
- Past performance issues from NRC inspection reports and Constellation's drill reports to determine effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10CFR50.47(b)(14).
- The post-exercise critique to evaluate Constellation's self-assessment of its ERO performance during the exercise and to ensure compliance with 10CFR50 Appendix E.IV.F.2.g.

The inspectors reviewed various documents which are listed in Attachment 1 to this report.

Enclosure

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES (OA)**

4OA2 Identification and Resolution of Problems (71152: PI&R Sample)

a. Inspection Scope

The inspectors reviewed Constellation's critique findings as documented in drill reports and some issue reports (IR) from 2002 through 2004. This review was conducted to determine if significant performance trends exist and to determine the effectiveness of licensee corrective actions based upon ERO performance during this exercise. Of specific focus was the licensee's corrective actions pertaining to error in past drills which have resulted in unnecessary PAR upgrades. The inspectors verified that issues identified during this exercise were entered into Constellation's corrective action program and are listed in an attachment to this report. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 01; 10 CFR 50.47(b)(14); and Appendix E IV.F.2.g were used as reference criteria.

4OA5 Other Activities

a. Inspection Scope

During Hurricane Isabel in September, 2003 the NRC requested Constellation Nuclear to activate their Emergency Response Data System (ERDS) to monitor their meteorological data which is transmitted from their onsite meteorological tower to the ERDS computer. Constellation activated the system; however, they informed the NRC that their meteorological tower was not capable of transmitting the data to the ERDS computer. In accordance to 10 CFR Part 50, Appendix E.VI, meteorological data is a parameter required to be transmitted to the ERDS for the NRC to receive and evaluate real-time data in the event of an emergency. The NRC reviewed this issue during the inspection of Constellation Nuclear's 2004 full-participation biennial exercise.

On November 30, 1992, the licensee informed the NRC they had the ability to transmit critical parameter data to the ERDS which included connection to their backup met tower. In March 1994, the licensee sent a letter to the NRC ERDS Project Manager regarding the deletion of the transmission of the meteorological data due to the tower's instrumentation was obsolete. The letter further stated that the primary meteorological tower was not resident in the plant computer and no retrofitting was required to connect this data to the ERDS computer.

The letter did not specifically request staff approval for removing the meteorological data from ERDS; however, the licensee provided a telephone conversation record dated February 1994 stating that the NRC ERDS Project Manager granted verbal approval for transmitting the meteorological data via the ENS. Based on this staff position,

Enclosure

transmitting the data via ENS was found to be an acceptable alternative method for transmitting the data. Although the alternative approach is not as optimum as the ERDS link, the approach does represent an approved staff position, and no further regulatory action is deemed necessary at this time.

Constellation Nuclear was informed that should they agree to activate the ERDS computer to respond to an NRC request, a dedicated person will need to be assigned to the ENS telephone line to immediately provide the NRC data that would normally be available over the ERDS computer. Constellation Nuclear stated they have developed a plan for reconnecting the primary meteorological tower to the ERDS computer and are pursuing completion of the task sometime in 2005.

b. Findings

No significant findings were identified.

40A6 Meetings, Including Exit

The inspectors presented the inspection results to Mr. M. Geckle, Manager of Operations, and other members of the licensee's staff at the conclusion of the inspection on October 8, 2004. The licensee had no objections to the NRC observations. No proprietary information was provided to the inspectors during this inspection.



**ATTACHMENT**

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

Ed Roach, Emergency Preparedness Manager

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened

None

Closed

None

Discussed

None

**LIST OF DOCUMENTS REVIEWED**

**Section 1EP1: Exercise Evaluation**

Calvert Cliffs Nuclear Power Plant Emergency Plan  
Emergency Plan Implementing Procedures

**Section 40A2: Identification and Resolution of Problems**

IR4-038-052 Plant parameter information system account lock-out  
IRE-000-523 Two of three fax machines in JIC did not function  
IR4-032-805 Radio channel M1 used both by maintenance and onsite monitoring team  
IR4-037-244 Security officer exposure and monitoring evacuees  
IR4-032-807 Radiological of dosimetry team in the 72' level  
IRE-000-514 No peer check for replacing cesium source in locker  
IRE-000-515 Dosimetry team vs OSC monitor collected dosimetry for the OSC  
IRE-000-513 Pages were missing from ERPIP-913  
IR4-032-811 Serial number in ERPIP-318 check sheet did not match serial number on source  
IR4-037-182 Some ERO members were not initially issued dosimetry  
IR4-037-240 SWP/EWP transition delayer recovery and re-entry teams

IR4-032-808 The IEWP to EWP transition process is slow and not user-friendly  
IR4-037-181 Missed DEP PI: unnecessary PAR upgrade  
IR4-037-261 Number of on call RASs is inconsistent with ERPIP-511  
IRE-000-522 Continuous ERO coverage in EOF did not meet expectations  
IR4-037-241 Dose Assessment Office activation was delayed by slow IRAD/RAD turn-over  
IR4-037-248 The RPD did not account for two dosimetry personnel  
IR4-032-809 Slow response to the RPD for the ED's signature on the EWP  
IR4-037-183 Some EOF communications/briefings were untimely, inaccurate or incomplete  
September 9, 2002, Emergency Response Drill Report  
June 30, 2003, Emergency Response Drill Report  
September 9, 2003, Emergency Response Drill Report  
October 21, 2003, Emergency Response Drill Report  
June 15, 2004, Emergency Response Drill Report  
July 27, 2004, Emergency Response Drill Report

### LIST OF ACRONYMS

CFR	Code of Federal Regulations
EAL	Emergency Action Level
ERDS	Emergency Response Data System
ERO	Emergency Response Organization
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
OSC	Operations Support Center
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center