



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

June 1, 2010

Mr. Paul A. Harden
Site Vice President
FirstEnergy Nuclear Operating Company
Beaver Valley Power Station
Shippingport, PA 15077

SUBJECT: BEAVER VALLEY POWER STATION – NRC EVALUATED EMERGENCY
PREPAREDNESS EXERCISE – INSPECTION REPORT NO.
05000334/2010502 AND 05000412/2010502

Dear Mr. Harden:

On April 23, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the April 20, 2010, evaluated emergency preparedness exercise at your Beaver Valley Power Station. The enclosed inspection report documents the inspection results, which were discussed on April 23, 2010, with you 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. However, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. NRC is treating this violation as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy because of the very low safety significance of the violation and because it is entered into your corrective action program. If you contest this non-cited violation, 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 the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Beaver Valley Power Station.

P. Harden

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Sincerely,



James A. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-334, 50-412
License Nos. DPR-66, NPF-73

Enclosure: NRC Inspection Report Nos. 05000334/2010502 and 05000412/2010502

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P. Harden

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Sincerely,

/RA/

James A. Trapp, Chief
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos: 50-334, 50-412

License Nos: DPR-66, NPF-73

Report Nos: 05000334/2010502, 05000412/2010502

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Beaver Valley Power Station Units 1 and 2

Location: Post Office Box 4
Shippingport, PA 15077

Dates: April 19 – 23, 2010

Inspectors: S. Barr, Sr. Emergency Preparedness Inspector, DRS, Region I (Lead)
D. Kern, Sr. Resident Inspector – Three Mile Island, DRP, Region I
D. Everhart, Physical Security Inspector, DRS, Region I
J. Laughlin, Emergency Preparedness Specialist, NSIR
E. Keighley, Reactor Engineer, DRP, Region I (Observer)
L. Kern, Reactor Engineer, DRP, Region I (Observer)
G. Gwiazdowski, Security Specialist, NSIR (Observer)

Approved By: James A. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000334/2010502, 05000412/2010502; 04/19/2010-04/23/2010; Beaver Valley Power Station; Exercise Evaluation; Emergency Action Level and Emergency Plan Changes; Emergency Preparedness Performance Indicators.

This was an announced inspection conducted by two region-based inspectors, one resident inspector and one headquarter-based inspector. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Emergency Preparedness

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Findings

A violation of very low safety significance, which was identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective actions are listed in Section 4OA7 of this report.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Exercise Evaluation (71114.01 – 1 Sample)

a. Inspection Scope

Prior to the April 20, 2010, emergency preparedness exercise, the NRC inspectors conducted an in-office review of the exercise objectives and scenario, which FENOC had submitted to the NRC, to determine if the exercise would test major elements of the Beaver Valley Emergency Plan as required by 10 CFR 50.47(b)(14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of FENOC's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) described in 10 CFR 50.47(b)(4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; and protective action recommendations, respectively.
- The overall adequacy of FENOC's Beaver Valley emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Operations Support Center (OSC), Technical Support Center (TSC), Emergency Operations Facility (EOF), and Joint Information Center (JIC).
- A review of other performance areas, such as: the Beaver Valley emergency response organization's (ERO's) recognition of abnormal plant conditions; command and control; intra- and inter-facility communications; prioritization of mitigating activities; utilization of repair and field monitoring teams; interface with offsite agencies; staffing and procedure adequacy; and the overall implementation of the emergency plan and its implementing procedures.
- A review of past performance issues from the last NRC Beaver Valley exercise inspection report and FENOC's Beaver Valley EP drill reports, to determine the effectiveness of licensee corrective actions as demonstrated during the April 20, 2010, exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- The licensee's post-exercise critiques, to evaluate FENOC's self-assessment of its ERO performance during the April 20, 2010, exercise and to ensure compliance with 10 CFR 50, Appendix E, Section IV.F.2.g.

The inspectors reviewed the documents listed in the attachment to this report.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (71114.04 – 1 Sample)

a. Inspection Scope

Since the last NRC inspection of this program area, in September 2009, FENOC implemented various revisions of the different sections of the Beaver Valley Emergency Plan. FENOC had determined that, in accordance with 10 CFR 50.54(q), any change made to the Plan, and its lower-tier implementing procedures, had not resulted in any decrease in effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50. The inspectors confirmed no EAL changes had been made since September 2009, and conducted a sampling review of other Emergency Plan changes, including the changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the Emergency Plan. However, this review was not documented in an NRC Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator (PI) Verification (71151 – 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the Beaver Valley EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) Emergency Response Organization (ERO) Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last NRC EP inspection at Beaver Valley was conducted in the third quarter of 2009, so the inspectors reviewed supporting documentation from EP drills, training records, and equipment tests from the third calendar quarter of 2009 through the first quarter of 2010, to verify the accuracy of the reported PI data. The review of these PIs was conducted in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 5.

This inspection activity represented the completion of three samples.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On April 23, 2010, the inspectors presented the results of this inspection to Mr. Paul Harden, Site Vice President, and other members of the FENOC staff. No proprietary information was provided to the inspectors during this inspection.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a non-cited violation (NCV).

10 CFR 50.54(q) requires that a nuclear power reactor licensee shall follow and maintain in effect emergency plans that meet the standards in 10 CFR 50.47(b). Contrary to this requirement, FENOC failed to maintain their described method of notifying State and local organizations of emergency events. Specifically, for the time period between February 8 and February 16, 2010, the Beaver Valley control room staff did not possess the newly-issued code word for verifying notification communications between the site and local officials. The control room staff's inability to use the proper code word would have unnecessarily delayed the required notification of those local officials, as required by 10 CFR 50.47(b)(5). Once discovered by FENOC on February 16, 2010, the condition was immediately corrected. FENOC further performed a Cause Analysis in conjunction with CR 10-71680 and initiated programmatic corrective actions to assure the control room is properly informed when a new code word is assigned. The finding was more than minor because it is associated with the emergency preparedness cornerstone and affected the cornerstone objective of ensuring proper offsite notification of an emergency event at the Beaver Valley Nuclear Power Station. The inspectors determined that the finding was of very low safety significance (Green), based on IMC 0609, Appendix B, because, while not having the proper code word could have delayed the offsite notification, alternate means of establishing offsite notifications were available and would have accomplished the notification objective.

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

G. Cramer, Emergency Planning Manager
B. Tuite, Regulatory Compliance Manager
R. Lieb, Site Operations Director
P. Harden, Site Vice President

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Section 1EP1: Exercise Evaluation

Beaver Valley Power Station Emergency Preparedness Plan (Revision 27)
Beaver Valley Power Station Emergency Plan Implementing Procedures
Beaver Valley April 20, 2010, Emergency Exercise Scenario Package
Beaver Valley Emergency Preparedness Drill Reports
BV-SA-09-0010, Snapshot Self Assessment
BV-SA-09-0027 Self Assessment Report
BV-SA-09-0031, Snapshot Self Assessment
BV-SA-09-0041, Self Assessment Report
SN-SA-10-166, Snapshot Self Assessment

Condition Reports written for the April 20, 2010, exercise:

| | |
|----------|----------|
| 10-75710 | 10-75722 |
| 10-75711 | 10-75728 |
| 10-75718 | 10-75729 |
| 10-75748 | 10-75730 |
| 10-75678 | 10-75732 |
| 10-75687 | 10-75663 |
| 10-75675 | 10-75734 |
| 10-75677 | 10-75735 |
| 10-75683 | 10-75735 |
| 10-75676 | 10-75736 |
| 10-75715 | 10-75706 |
| 10-75707 | 10-75704 |
| 10-75746 | 10-75703 |
| 10-75749 | 10-75688 |
| 10-75721 | 10-75684 |

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Procedure NOP-CC-2003, Engineering Changes (Revision 12)

Procedure NOP-CC-2004, Design Interface Reviews and Evaluations (Revision 6)

Procedure NOP-LP-4003, Evaluation of Changes, Tests and Experiments (Revision 4)

Procedure NOP-LP-5002, Evaluation of Changes to Emergency Plans and Supporting
(Revision 2)

Documents 10CFR50.54 (q) (Revision 0)

10 CFR 50.54(q) Screening Packages:

PAF-09-01653

PAF-09-02836

PAF-09-02838

10-00066

10-00263

10-00416

10-00417

10-00418

10-00419

10-00825

Section 40A1: Performance Indicator Verification

Procedure 1/2 –ADM-1111, NRC EPP Performance Indicator Instructions (Revision 3)

ERO Drill Participation PI data, July 2009 – March 2010

Public Notification System PI data, July 2009 – March 2010

DEP PI data, July 2009 – March 2010

LIST OF ACRONYMS

| | |
|------|------------------------------------|
| ANS | Alert Notification System |
| CR | Condition Report |
| DEP | Drill and Exercise Performance |
| EAL | Emergency Action Level |
| EOF | Emergency Operations Facility |
| EP | Emergency Preparedness |
| ERO | Emergency Response Organization |
| JIC | Joint Information Center |
| NEI | Nuclear Energy Institute |
| NRC | Nuclear Regulatory Commission |
| OSC | Operations Support Center |
| PI | Performance Indicator |
| RSPS | Risk Significant Planning Standard |
| TSC | Technical Support Center |