

May 15, 2007

Mr. James Lash
Site Vice President, Beaver Valley Power Station
FirstEnergy Nuclear Operating Company
Post Office Box 4
Shippingport, Pennsylvania 15077

SUBJECT: BEAVER VALLEY POWER STATION - NRC PROBLEM IDENTIFICATION
AND RESOLUTION INSPECTION REPORT 05000334/2007006 AND
05000412/2007006

Dear Mr. Lash:

On April 5, 2007, the U. S. Nuclear Regulatory Commission (NRC) completed a team inspection at the Beaver Valley Power Station. The enclosed report documents the inspection findings, which were discussed on April 5, 2007 with yourself and other members of your staff during an exit meeting.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the samples selected for review, there were no findings of significance identified during this inspection. The Team concluded that problems were properly identified, evaluated, and resolved within the problem identification and resolution (PI&R) programs. Active use of the corrective action program (CAP) resulted in generally good equipment reliability. However, during the inspection, some examples of minor problems were identified, including conditions adverse to quality that were not being entered into the corrective action program. The Team also noted that corrective actions for procedure adherence issues identified in a number of licensee self assessments were not fully effective, and acknowledged FENOC's plans to make this issue a station focus area for 2007.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Ronald R. Bellamy, Ph.D., Chief
Reactor Projects Branch 6
Division of Reactor Projects

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

Enclosures: Inspection Report 05000334/2007006; 05000412/2007006
w/Attachment: Supplemental Information

cc w/encl:

J. Hagan, President and Chief Nuclear Officer
J. Lash, Senior Vice President of Operations
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J. Rinckel, Vice President, Fleet Oversight
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M. Clancy, Mayor, Shippingport, PA
D. Allard, PADEP
C. O'Claire, State Liaison to the NRC, State of Ohio
Z. Clayton, EPA-DERR, State of Ohio
Director, Utilities Department, Public Utilities Commission, State of Ohio
D. Hill, Chief, Radiological Health Program, State of West Virginia
J. Lewis, Commissioner, Division of Labor, State of West Virginia
W. Hill, Beaver County Emergency Management Agency
J. Johnsrud, National Energy Committee, Sierra Club

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J. Lash

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos: 50-334, 412

License Nos: DPR-66, NPF-73

Report Nos: 05000334/2007006 & 05000412/2007006

Licensee: FirstEnergy Nuclear Operating Company

Facility: Beaver Valley Power Station

Location: Shippingport, Pennsylvania 15077

Dates: March 26 to April 5, 2007

Team Leader: D. Kern, Senior Resident Inspector - Three Mile Island, Division of Reactor Projects

Inspectors: S. McCarver, Project Engineer, Division of Reactor Projects
T. Setzer, Project Engineer, Division of Reactor Projects
D. Werkheiser, Resident Inspector - Beaver Valley, Division of Reactor Projects

Approved by: Dr. Ronald R. Bellamy, Chief
Projects Branch 7
Division of Reactor Projects

Enclosure

SUMMARY OF ISSUES

IR 05000334/2007006, IR 05000412/2007006; 03/26/2007-04/05/2007; Beaver Valley Power Station, Units 1 & 2; baseline inspection of the identification and resolution of problems.

The report covered a two week team inspection conducted by two regional inspectors and two resident inspectors. No findings or violations were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. 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.

Identification and Resolution of Problems

The Team concluded that First Energy Nuclear Operating Company (FENOC) was effective in identifying problems and entering them into the corrective action program (CAP). FENOC's effectiveness at problem identification was evidenced by the relatively few significant deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee during the review period. Although overall plant material condition had improved, the Team noted that some plant housekeeping deficiencies and minor long-term equipment deficiencies were commonly accepted by station personnel. If left uncorrected, these deficiencies could potentially mask equipment problems which may become worse. Station management initiated actions to address this concern. Once entered into the CAP, issues were promptly and consistently screened, prioritized, and evaluated commensurate with their significance. Active use of the CAP to identify and resolve equipment issues has resulted in good overall equipment reliability. Corrective actions were generally effective and were typically completed in a timely manner.

Use of industry operating experience improved since 2005 and was effective. Self-assessments were critical, identified meaningful performance trends, and issues were entered, as appropriate, into the CAP. Self-assessments repeatedly identified deficient procedure adherence across the station; however, corrective actions taken since 2005 have been only partially effective in addressing the issue. The Team noted that station management has identified "procedure adherence" as a 2007 station focus area. The Team determined the licensee supported a safety conscious work environment in which workers actively participate in the CAP and freely raise issues of concern to station management. Workers and managers alike consistently demonstrated a positive perspective toward improving station safety and working conditions.

A. NRC-Identified and Self-Revealing Findings

None.

B. Licensee Identified Findings

None.

REPORT DETAILS

1. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

a. Assessment of the Corrective Action Program

(1) Inspection Scope

The Team reviewed the procedures describing the corrective action program (CAP) at the Beaver Valley Power Station (BVPS). Station personnel identified and documented problems by initiating either notifications in the SAP multi-management work tracking system (SAP) for non-adverse conditions, or condition reports (CRs) in the Condition Report Evaluation and Status Tracking system (CREST) for adverse conditions. Actions taken to address notifications were considered enhancement actions to address minor problems and were not intended to remediate or prevent adverse conditions or their causes. Condition reports were written for conditions adverse to quality such as failures, malfunctions, and deficiencies, or human performance, programmatic, organizational, or management weaknesses that adversely affect Quality, Augmented Quality, or nuclear safety related equipment, programs, or processes. The CRs were subsequently screened for operability, categorized by significance and evaluation method, and assigned for evaluation and resolution. The significance categories were significant condition adverse to quality (SCAQ) and condition adverse to quality (CAQ). The evaluation methods were root cause analysis, apparent cause evaluation, limited apparent cause evaluation, fix, and close. The Team attended daily initial screening and management review meetings to assess whether issues were appropriately evaluated and categorized in accordance with BVPS procedures.

The Team reviewed CRs selected across the seven cornerstones of safety in the NRC's Reactor Oversight Program, to determine if problems were being properly identified, characterized, and entered into the CAP for evaluation and resolution. Due dates for each corrective action were checked to verify they were assigned commensurate with the safety significance of the issue. The Team selected items from the maintenance, operations, engineering, emergency planning, security, radiological control, quality assurance, and employee concerns programs to ensure that BVPS was appropriately considering problems identified in each functional area. Based on risk insights, the Team also performed a focused assessment of PI&R for the Unit 1 auxiliary feedwater (AFW) system. The Team selected a risk-informed sample of CRs that had been issued since the last NRC PI&R inspection (August 2005), and for some samples such as the Unit 1 AFW system, reviewed related CRs for the past 5 years.

In addition to CRs, the Team selected items from other processes at Beaver Valley to verify that they appropriately considered problems identified in these areas for entry into the CAP. Specifically, the Team reviewed a sample of SAP notifications, maintenance work orders, control room deficiency and work-around lists, operability determinations, NRC & industry operating experience issues, engineering system health reports, the current temporary modification list, and completed surveillance tests. The documents and activities were reviewed to ensure that underlying problems associated with each issue were appropriately considered for resolution via the CAP. 10 CFR 50.65 a(1) evaluations were inspected to ensure decisions made to place systems in Maintenance Rule a(2)

status were appropriate. In addition, the Team interviewed plant staff and management to determine their understanding of and involvement with the CAP. The Team also conducted walkdowns of selected systems and plant areas to assess whether degraded conditions were being properly identified and corrected. The CRs and other documents reviewed, and a list of key personnel contacted, are listed in the Attachment to this report.

(2) Assessment

Identification of Issues

No findings of significance were identified in the area of identification of issues.

Overall, the Team considered the identification of problems at Beaver Valley to be appropriate, at a reasonably low threshold, with problems identified during plant activities being entered into the corrective action program (CAP). Approximately 8500 condition reports (CRs) were written per year, not including minor problems entered into SAP. No instances were identified where conditions adverse to quality were being handled outside the CAP. The inspectors did not identify any significant conditions adverse to quality which did not have an associated CR.

However, The Team noted examples where station personnel did not identify conditions adverse to quality:

- An inspection conducted in the Unit 1 river water valve pit flood seals associated with NCV 05000334/2006002-01 in February 2006 did not identify a missing pipe penetration flood seal and consequently did not correct the missing seal in a timely manner. This condition was discovered by the licensee in February 2007. This issue resulted in Green NCV 05000334/2007002-01. Further details are documented in NRC Inspection Report Nos. 05000334(412)/2007002.
- The Team identified an instance where maintenance personnel did not identify that the stuffing box clearance for the Unit 2 auxiliary feedwater pump [2FWE-P23A] exceeded the limits specified in the repair work order. FENOC engineers consulted with the vendor and determined that, due to the size of the packing installed, the safety function of the pump would not be affected. This is considered a violation of minor significance and is not subject to enforcement action, in accordance with NRC's Enforcement Policy.

Station personnel established appropriate system health goals and performance monitoring criteria to help maintain low thresholds for identifying and resolving problems, resulting in good equipment reliability. Relatively few deficiencies were identified by external organizations, including the NRC, that had not been previously identified by the licensee.

Though improvements in material condition of the plant and control room were noted, the inspectors also observed stray material left within the radiological controlled area and numerous old equipment deficiency tags (some 7 years old). While none of the material issues had safety significance, they indicated deficient ownership of general plant housekeeping and acceptance of long term minor equipment deficiencies. Left uncorrected, minor equipment deficiencies and poor plant housekeeping tend to mask equipment problems which may lead to further degradation of plant equipment. In

response to this concern, station management initiated several CRs and a new self assessment to evaluate open plant equipment deficiency tags.

Prioritization and Evaluation of Issues

No findings of significance were identified in the area of prioritization and evaluation of issues.

The Team determined that FENOC's prioritization and evaluation of issues was generally good. FENOC demonstrated a low threshold for assigning apparent cause and root cause evaluations for specific issues. Clear ownership was demonstrated by each department at the daily CR screening meetings.

System Health reports were of good quality. The inspectors found no inaccuracies with the determinations of maintenance preventable functional failures and maintenance rule functional failures. 10 CFR 50.65 a(1) evaluations were thorough and contained a well explained basis.

Operability determinations were found to be accurate and contained good detail. Where applicable, the basis for continued operation was well articulated. The inspectors found no instances where the basis for operability was inaccurate.

Work orders (WOs) were properly prioritized and had thorough documentation describing the actual work performed. The inspectors verified that FENOC was diligent in ensuring items in the CR process were entered into the SAP database for work order creation. No instances were found where a CR requiring a work order was closed out with no work performed. CRs and WOs had traceability to each other.

Effectiveness of Corrective Action

No findings of significance were identified in the area of effectiveness of corrective actions.

The Team concluded that corrective actions were generally appropriate to resolve identified issues, and were typically completed in a timely manner. The majority of the corrective actions reviewed were effective. Examples included CR 05-02510, which resulted in improved maintenance procedure quality and reduced maintenance backlogs and CR 05-06537, which improved plant safety by increasing heat sink availability during online calibration of the main condenser vacuum pressure switches. Corrective actions to address NRC non-cited violations were generally timely and effective.

Notwithstanding the overall effectiveness of corrective actions, the Team identified some instances of ineffective or untimely corrective actions. Examples included:

- The Team identified a minor violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for a failure to take effective corrective actions to address elevated vibrations associated with the Unit 2 main feedwater regulating valve FW-HCV-488 actuator. The resulting air leak degraded the reliability of FW-HCV-488 design function to close.

- Untimely corrective actions led to the unplanned shutdown of Unit 2 'A' auxiliary feedwater pump 2FWE-P23A due to elevated stuffing box temperatures during surveillance testing (CR 06-4133). Engineers subsequently provided a bounding analysis which proved the pump remained operable, despite the elevated stuffing box temperatures.
- Corrective actions to address an unsuccessful emergency event declaration during licensed operator requalification training was too narrowly focused in that it did not address performance deficiencies by the peer check senior reactor operator (CR 06-04917).

The Team evaluated the CAP deficiencies noted above for potential significance. The Team determined that none of the individual issues was a finding of more than minor significance based upon the guidance in NRC Manual Chapter 0612, "Power Reactor Inspection Reports," and therefore, these issues were not subject to enforcement action.

b. Assessment of the Use of Operating Experience

(1) Inspection Scope

The Team reviewed station and fleet documents pertaining to operating experience (OE) information. The Team also selected a sample of operating experience issues to confirm that station personnel had evaluated the OE information for applicability to Units 1 and 2 and had taken appropriate actions, when warranted. The Team conducted interviews, plant walkdowns, and document reviews to ensure that underlying problems associated with the issues were appropriately considered for resolution via the corrective action process. A list of the specific documents reviewed is included in the Attachment.

(2) Assessment

No findings of significance were identified in the area of operating experience.

The use of OE at Beaver Valley was typically timely and effective. The inspectors found that OE information was appropriately considered for applicability, and corrective and preventive actions were taken, as needed. Operating experience information was integrated into routine activities, such as daily-shift and pre-job briefs, procedures, and training material. The inspectors noted several positive examples in which plant personnel considered alternate sources of OE information, in addition to material provided by the OE Program.

The inspectors noted that the OE process changed in September 2005 and is now facilitated by a FENOC fleet coordinator interfacing with the site OE coordinator. The fleet coordinator performs an initial screening of OE issues from various sources for applicability to the fleet and enters the issue into SAP as a notification for fleet evaluation. The issue is also forwarded to each FENOC site for further screening and, if needed, site evaluation. Beaver Valley has access to the fleet information in addition to the OE items screened as applicable to the site. A CR is entered into the CAP if it is determined an OE issue necessitates further evaluation, review, or corrective actions.

During a September 2006 fleet OE program assessment, FENOC identified a significant backlog of OE items to be screened by Beaver Valley. A fleet CR was entered into the

CAP and appropriate corrective actions were implemented. Backlog OE issues were appropriately prioritized and screened in a reasonable period of time. The Team reviewed a sample of prior backlog OE issues and did not identify circumstances which could result in significant degraded conditions based on a failure to timely disseminate OE information. The existing backlog is managed and does not represent significant undetected or unaddressed issues at Beaver Valley. Despite this deficiency, the team concluded that the OE program at Beaver Valley has improved since 2005, based on consistent integration of OE into routine plant activities and effective resolution of the OE items reviewed.

c. Assessment of Self-Assessments (SAs) and Audits

(1) Inspection Scope

The Team reviewed a sample of FENOC's Quality Assurance audits, Fleet Oversight Quarterly Performance Reports, Corporate Nuclear Safety Review Board reports, departmental integrated performance assessments (IPAs), and focused area SAs including the most recent self-assessment of the CAP. The sample included the December 2006 BVPS Safety Culture Assessment. The review was performed to determine whether self-assessments and audits were effective at identifying issues, whether identified issues were entered into the CAP, when appropriate, and whether corrective actions were appropriate, commensurate with the issues' safety significance. The effectiveness of the audits and SAs was evaluated by comparing audit and SA results against self-revealing and NRC-identified findings, and current observations during the inspection. A list of the specific documents reviewed is included in the Attachment.

(2) Assessment

No findings of significance were identified.

The Team determined that, in general, audits and assessments were critical, identified meaningful trends and areas for improvement, and the results were entered into the CAP for tracking and resolution. In 2006, in addition to performing SAs on selected focused topics or programs, the licensee began performing broad based IPAs of each section of the organization. The Team observed that several IPAs demonstrated improved quality and performance trend assessment over the previous SA format. Two specific examples of successful IPAs and effective follow-up corrective action were noted. BV-SA-06-096, "IPA - Security - 2006 First 6 months," identified an emerging declining trend in equipment reliability. Corrective actions were appropriately implemented. BV-SA-06-023, "IPA - Chemistry - 2005 Second 6 months," identified adverse trends in procedure adherence and procedure level-of-use. Corrective actions included raising the level-of-use for analysis procedures from "general skill reference" to "in-field reference." A second assessment in April 2006 noted that while procedure use was improved, a trend of minor procedure adherence issues continued. A supervisor field observation program and required reading reference binder were established as corrective actions. The Team determined the corrective actions were effectively implemented and Chemistry department procedure use has improved.

The Team noted that SAs and IPAs performed over the past 2 years indicated a continued underlying performance theme of "deficient procedure adherence" among several station departments. FENOC performed a common cause assessment to

determine the cause(s) of the continued procedure adherence issues. The principle causal factors as described in "2005 Common Cause Assessment of Human Performance (CR 06-03195)" were procedure not followed, incomplete work, and inattention to detail. Some corrective actions had been implemented with positive results (e.g., reduced vendor/contractor procedure errors, less frequent section clock resets, reduced significance of errors, reduced errors noted during management and peer-to-peer field observations, and improved work order quality). Others (e.g., procedure in-hand day, procedure focus daily - message, pre outage read & sign), were untimely or had not been implemented.

The Team identified several minor procedure violations during this inspection (CRs 07-16920, 07-17129, 07-17175, 07-17248, 07-17487, 07-17555, and 07-17565). These violations occurred broadly across station departments, represented current performance, and were typically associated with administrative or "general skill reference" category procedures. The Team determined that none of the individual issues was a finding of more than minor significance based upon the guidance in NRC Manual Chapter 0612, "Power Reactor Inspection Reports," and therefore, these issues were not subject to enforcement action.

These observations, coupled with a review of CR causal factor trends from 2005 to present, indicated that corrective actions to improve procedure adherence had not been fully effective. Condition reports were appropriately initiated for each issue and station management acknowledged that procedure adherence was a continued problem and was a 2007 station focus area. The Performance Improvement staff informed the Team of several new performance assessment tools and associated corrective actions being generated as a result of these self-assessments. These actions were not yet implemented and therefore were not assessed during this inspection.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

The Team observed morning management meetings, pre-evolution briefings, shift turnover briefings, and conducted interviews with station personnel to assess the safety conscious work environment (SCWE) at BVPS. Specifically, the inspectors assessed whether workers were hesitant to enter issues into the CAP or raise safety concerns to their management and/or the NRC due to a fear of retaliation or fear of creating an increased workload which may require excessive overtime to address. The Team reviewed the results of the December 2006 BVPS Safety Culture Assessment, 2005 BVPS SCWE survey, 2006 BVPS SCWE survey, and associated CRs, to assess challenges to the free flow of information. The Team also reviewed employee concerns program (ECP) effectiveness to determine whether employees were willing to use the program as an alternate path for raising concerns. The Team reviewed a selection of 2005 and 2006 ECP files to determine whether issues raised through the program were appropriately addressed. A list of the specific documents reviewed is included in the Attachment.

(2) Assessment

No findings of significance were identified.

The Team determined BVPS supported a safety conscious work environment, in which workers actively participate in the CAP and freely raise issues of concern to station management. Workers and managers alike consistently demonstrated a positive perspective toward improving station safety and working conditions. Station personnel were aware of the importance of nuclear safety and demonstrated a willingness to raise safety issues. The Team noted a positive trend over the last two years in Safety Culture survey participation and positive responses in Security and Chemistry. Overall, the use of overtime was not excessive and periods of elevated overtime (e.g. refueling outages) were reasonably managed.

The Team concluded the ECP was actively used, resulted in reasonable and timely evaluations, and provided feedback to the originators. Based on the interviews and document reviews described above, the Team concluded there was no evidence of any SCWE issues at Beaver Valley.

4OA6 Meetings, including Exit

On April 5, 2007, the Team presented the inspection results to Mr. J. Lash and other FENOC personnel, who acknowledged the results of this inspection. The inspectors confirmed that proprietary information reviewed during the inspection has been returned or would be handled in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Request for Withholding."

ATTACHMENT: Supplemental Information

In addition to the documentation that the inspectors reviewed (listed in the Attachment), copies of information requests given to the licensee and e-mail correspondence between the NRC and licensee personnel are in ADAMS, under accession number ML071350070.

J. Lash

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

S. Baker, Manager, Radiation Protection
M. Banko, Safety and Environmental Protection
D. Batina, Employee Concerns Representative
J. Belfiore, Design Engineering
R. Bisbee, Supervisor, Performance Improvement
J. Bosiljevac, Supervisor, Nuclear Information Technology Maintenance
S. Buffington, Design Engineering
G. Cacciani, Design Engineering
T. Cosgrove, Director, Maintenance
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P. Dearborn, Engineer
R. Dibler, Supervisor, BVPS Nuclear Security Support
B. Furbak, Supervisor, Chemistry
J. Gallagher, Technical Services Engineer
F. Gardner, Design Engineering
J. Habuda, System Engineer, U1 Auxiliary Feedwater
M. Johnston, Supervisor, Training Services
C. Keller, Manager, Regulatory Compliance
M. Kienzle, System Engineer, U2 Auxiliary Feedwater
J. Lash, Site VP
C. Mancuso, Manager, Design Engineering
M. Manoleras, Director, Engineering
C. Makowka, Packing Program and Oil Analysis
J. Mauck, Regulatory Compliance
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M. Mitchell, Supervisor, System Engineering
N. Morrison, Superintendent, Work Planning
M. Mitchell, Work Planning and Support
D. Murray, Manager, Plant Engineering
F. Oberlitner, Design Engineering
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M. Pavlick, Operating Experience Coordinator, FENOC Fleet
M. Pergar, Supervisor, Nuclear Oversight
T. Porter, Nuclear Oversight
R. Price, Emergency Preparedness
R. Rossomme, Manager, Fleet Cap
D. Salera, Manager, Chemistry
F. Schweitzer, Advanced Nuclear Specialist, Chemistry
P. Sena, Director, Site Operations
B. Sepelak, Supervisor, Compliance
G. Shildt, Plant Engineer
J. West, Staff Nuclear Engineer, Plant Engineering
B. Winters, Advanced Nuclear Specialist, Chemistry

Others

R. Bellamy, Branch Chief, USNRC
 P. Cataldo, Senior Resident Inspector, USNRC
 L. Ryan, PA-BRP

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSEDOpen and Closed

None

LIST OF DOCUMENTS REVIEWEDProcedures and Instructions

1/2-ADM-0810, "Scaffold Erection and Tagging," Rev. 7
 1/2-ADM-0817, "Beaver Valley Conduct of Maintenance," Rev. 2
 1/2-ADM-2113, "Operability Determinations and Basis for Continued Operation," Rev. 2
 1/2-ADM-2009, "Equivalent Replacements," Rev. 4
 1/2-ADM-2028, "Temporary Modifications," Rev. 6
 1/2-ADM-2114, "Maintenance Rule Program Administrative Procedure," Rev. 3
 1/2-ADM-2203, "Control of Correspondence Associated with Safety-Related Systems, Structures, and Components," Rev. 0
 1/2-CMP-M-75-031, "Pump Packing Instruction," Rev. 2
 1ICP-24-FIS151B, "FIS-1FW151B Auxiliary Feedwater Pump 1FW-P-3B Recirculation Flow Indicator Calibration," Rev. 4
 1MSP-24.25-I, "L-1FW496, Loop 3 NR SGWL Ch 3 Calibration," Rev. 12
 1OM-24.2B, "Setpoints," Rev. 9
 1OM-24.4.AAD, "Auxiliary Feedwater Pump Recirc Loops A/B Low Flow," Rev. 4
 1OM-24.4.5, "Auxiliary Feedwater Pump Startup," Rev. 2
 1OM-53C.4.1.24.1, "Loss of Main Feedwater," Rev. 3
 1OST-1.24A, "18 Month Slave Relay Testing (Train A)," Rev. 1
 1OST-24.3, "Motor Driven Auxiliary Feed Pump Test [1FW-P-3B]," Rev. 10
 1OST-24.4, "Steam Turbine Driven Auxiliary Feed Pump [1FW-P-2]," Rev. 34
 1OST-24.13, "Overspeed Trip Test of Turbine Driven AFW Pump [1FW-P-2]," Rev. 34
 1/2-ADM-1711, "Secondary System Chemistry Monitoring Program," Rev. 8
 1/2-ADM-1712, "Primary System Chemistry Monitoring Program," Rev. 4
 1/2-ADM-1730, "Laboratory Quality Assurance and Quality Control Program," Rev. 9
 1/2-ADM-1900, "Fire Protection Program," Rev. 14
 1/2-ADM-2017, "Control of Vendor Technical Information," Rev. 7
 1/2-CHM-ANA-4.27G, "Titrimetric Determination of Boron using the Mettler DL-53 Auto-Titration System," Rev. 4
 1/2-CHM-ANA-5.7, "Iodine," Rev. 1
 1/2OM-48.1.C.F01, "Shift Manager - Shift Turnover Checklist," Rev. 2
 1/2OM-48.3D, "Administrative Control of Valves and Equipment," Rev. 5
 1/2OST-48.9, "Equipment Section Review," Rev. 10
 2-CHM-SAM-3.12, "Reactor Coolant Letdown (Demineralizer Inlet Header)," Rev. 13
 2-CHM-SAM-3.18, "Fuel Pool," Rev. 12
 2-CHM-SAM-3.37, "Reactor Coolant," Rev. 38
 NOBP-ER-3008, "FENOC Plant Health Report Program", Rev. 1
 NOBP-CC-1005, "FENOC Latent Issues Review Process," Rev. 0

NOBP-LP-2001, "FENOC Self-Assessment/Benchmarking," Rev. 9
 NOBP-LP-2003, "Employee Concerns Program," Rev. 1
 NOBP-LP-2007, "Condition Report Process Effectiveness Review," Rev. 3
 NOBP-LP-2008, "FENOC Corrective Action Review Board," Rev. 6
 NOBP-LP-2010, "CREST Trending Codes," Rev. 5
 NOBP-LP-2011, "FENOC Cause Analysis," Rev. 6
 NOBP-LP-2018, "Integrated Performance Assessment/Trending," Rev. 2
 NOBP-LP-2019, "Corrective Action Program Supplemental Exceptions and Guidance," Rev. 6
 NOBP-LP-2501, "Safety Culture Assessment," Rev. 6
 NOBP-LP-2502, "Safety Culture Monitoring," Rev. 2
 NOBP-LP-2067, "Observation and Coaching Program," Rev. 1
 NOBP-WM-5014, "Maintenance Rework Program," Rev. 02
 NOP-CC-2003, "Engineering Changes," Rev. 10
 NOP-CC-2004, "Design Interface Reviews and Evaluations," Rev. 5
 NOP-ER-2001, "Boric Acid Corrosion Control Program," Rev. 6
 NOP-ER-3004, "FENOC Maintenance Rule Program," Rev. 0
 NOP-LP-1101, "Security General Administration," Rev. 0 and Rev. 1
 NOP-LP-2001, "Corrective Action Program," Rev. 15
 NOP-LP-2100, "Operating Experience Program," Rev. 1
 NOP-LP-2601, "Procedure Use and Adherence," Rev. 0
 NOP-OP-1009, "Immediate and Prompt Operability Determination," Rev. 0
 NOP-SS-3001, "Procedure Review and Approval," Rev. 10
 NOP-WM-0001, "Work Management Process," Rev. 02
 NOP-WM-1001, "Order Planning Process," Rev. 08
 NOP-WM-1003, "Nuclear Maintenance Notification Initiation, Screening, and Minor Deficiency Monitoring Process," Rev. 03
 NOP-WM-2001, "Work Management Scheduling/Assessment/Seasonal Readiness Process," Rev. 06
 NOP-WM-4006, "Conduct of Maintenance," Rev. 1
 NOP-WM-9001, "FIN/Minor/Tool Pouch/Immediate/Urgent Maintenance," Rev. 03
 NORM-ER-3102, "Motor," Rev. 2

Audits and Assessment Reports

BV-C-05-03, Fleet Oversight Assessment Report (3rd quarter 2005) - Beaver Valley
 BV-C-05-04, Fleet Oversight Assessment Report (4th quarter 2005) - Beaver Valley
 BV-C-06-01, Fleet Oversight Assessment Report (1st quarter 2006) - Beaver Valley
 BV-C-06-02, Fleet Oversight Assessment Report (2nd quarter 2006) - Beaver Valley
 BV-C-06-03, Fleet Oversight Assessment Report (3rd quarter 2006) - Beaver Valley
 BV-PA-06-04, Fleet Oversight Quarterly Performance Report (4th quarter 2006) - Beaver Valley
 BV-PA-06-04, Fleet Oversight Quarterly Performance Report (4th quarter 2006) - Beaver Valley
 BV-PA-06-03, Fleet Oversight Quarterly Performance Report (4th quarter 2006) - Beaver Valley
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 BV-SA-05-042, Effectiveness of Problem Identification
 BV-SA-05-187, Beaver Valley and Davis Besse Acid Corrosion Control Program
 BV-SA-05-209, Latent Issues Review, 4th quarter
 BV-SA-06-021, IPA - Work Management
 BV-SA-06-023, IPA - Section Chemistry
 BV-SA-06-032, Use of OE by Oversight
 BV-SA-06-033, Seismic Scaffolding Program
 BV-SA-06-036, Chemistry SCWE
 BV-SA-06-081, Procedure Non-Compliance Worksheet Evaluation

BV-SA-06-096, IPA - Section Security
 BV-SA-06-099, IPA - Operations (Normal)
 BV-SA-06-100, IPA - Operations Procedures
 BV-SA-06-105, IPA - Section: Chemistry
 BV-SA-06-107, IPA - Training
 BV-SA-06-144, IPA - Corrective Action Program
 BV-SA-06-150, Maintenance Procedures
 BV-SA-06-171, Latent Issues Review, 3rd quarter
 BV-SA-07-003, Emergency Preparedness Baseline Inspection Preparation
 BV-SA-07-005, Problem Identification & Resolution
 BV-SA-07-060, IPA - Mechanical Maintenance
 BV-SA-07-072, IPA - Regulatory Compliance
 BVPS Safety Culture Assessment - December 2006
 BVPS SCWE Survey - November 2005
 BVPS SCWE Survey - September 2006
 FENOC Company Nuclear Review Board Meeting Minutes dated September 15, 2006
 FENOC Company Nuclear Review Board Meeting Minutes dated January 12, 2007
 MS-C-06-10-07, Maintenance / Work Management QA Audit Report

Condition Reports (* denotes a CR generated as a result of this inspection)

03-06353	05-06576	06-00255	06-02520
03-11780	05-06605	06-00502	06-02657
04-02688	05-06645	06-00523	06-02683
04-02688	05-06693	06-00633	06-02726
04-06108	05-06698	06-00719	06-02727
04-06162	05-06742	06-00720	06-02785
05-00245	05-06758	06-00723	06-02846
05-01124	05-06794	06-00794	06-02889
05-01816	05-06880	06-00794	06-02900
05-02510	05-06886	06-00797	06-03041
05-02574	05-06923	06-00874	06-03137
05-02728	05-07052	06-00907	06-03195
05-03555	05-07126	06-00908	06-03239
05-04012	05-07194	06-01082	06-03274
05-05743	05-07203	06-01168	06-03315
05-05793	05-07237	06-01195	06-03338
05-05802	05-07327	06-01300	06-03455
05-05901	05-07402	06-01421	06-03468
05-05937	05-07429	06-01461	06-03558
05-06000	05-07453	06-01506	06-03631
05-06035	05-07465	06-01622	06-03631
05-06174	05-07518	06-01795	06-03705
05-06177	05-07518	06-01800	06-03757
05-06220	05-07738	06-01923	06-03766
05-06229	05-07771	06-02006	06-03833
05-06327	05-07795	06-02169	06-03920
05-06347	05-07928	06-02196	06-03924
05-06375	05-07930	06-02196	06-04079
05-06424	05-08054	06-02484	06-04099
05-06480	05-08063	06-02510	06-04133
05-06537	05-08120	06-02518	06-04206

06-04215	06-06957	07-12400	07-17019*
06-04252	06-07046	07-12463	07-17068*
06-04345	06-07094	07-12533	07-17080*
06-04697	06-07127	07-12724	07-17084*
06-04781	06-07376	07-12776	07-17085*
06-04783	06-07561	07-12859	07-17129*
06-04832	06-08071	07-13061	07-17130*
06-04833	06-08456	07-13104	07-17131*
06-04865	06-08492	07-13105	07-17145*
06-04904	06-08553	07-13245	07-17159*
06-04917	06-08632	07-13337	07-17164*
06-04924	06-09133	07-13353	07-17175*
06-04930	06-09535	07-13430	07-17179
06-04997	06-09758	07-14013	07-17188*
06-05012	06-09766	07-14097	07-17195*
06-05027	06-10147	07-14163	07-17233*
06-05173	06-10221	07-14235	07-17248*
06-05197	06-10431	07-14384	07-17360*
06-05201	06-10639	07-15163	07-17370*
06-05209	06-10715	07-15163	07-17379*
06-05216	06-10869	07-15438	07-17381*
06-06090	06-10872	07-15444	07-17387*
06-06114	06-10921	07-15574	07-17402*
06-06120	06-10962	07-15600	07-17403*
06-06137	06-10979	07-15627	07-17432
06-06207	06-11106	07-15633	07-17463*
06-06271	06-11172	07-15634	07-17472*
06-06272	06-11465	07-15733	07-17487*
06-06303	06-11469	07-15801	07-17550*
06-06367	06-11479	07-15881	07-17555*
06-06628	06-11529	07-16025	07-17565*
06-06700	06-11734	07-16101	07-17664*
06-06739	06-11869	07-16920*	07-17792*
06-06783	06-11902	07-17002	07-17796*
06-06784	06-11917	07-17015*	
06-06887			

Operability Determinations

05-04012
05-06375
05-07253
06-04345
06-04955-01
06-06114
06-06932
06-07017
06-09766
07-13430

Operating Experience Reviews

CR 01-00764, Auxiliary Feedwater Pumps Seal Leakage

OE 20655

FENOC/Beaver Valley Operating Experience Screening SAP Backlog List, dated April 3, 2007

FENOC/Beaver Valley Operating Experience Screening Status Summary, dated April 3, 2007

Nuclear Logistics Inc, Notification of a Potential Defect per 10CFR21 Square D Micrologic

TripDevice, dated November 23, 2005

NRC GL 2006-02, "Grid Reliability.... Impact on Plant Risk and the Operability of Offsite Power"

NRC IN 2002-22, Ultra-Low Sulfur Diesel Fuel"

NRC IN 2007-009, "Degraded Voltage Conditions"

NRC RIS_2005-20, "Revision to Guidance Formerly Contained in NRC Generic Letter 91-18"

Westinghouse NSAL-06-013, "Barton Model 763, 763A, and 764 Transmitters With Defective
Extenal Lead Wire Connectors"SAP Notifications (Work Requests)

200106724	200220788	600334768
200165894	200220789	600348119
200171618	600195783	600337828
200192862	600289606	600353421
200220784	600297407	600373525
200220785	600321509	600373653
200220786	600333390	600374867
200220787	600334760	600375148

Maintenance Work Orders

200013834	200171618	200210940
200020787	200173087	200219871
200206512	200184484	200226902
200068180	200194060	200228102
200113029	200197634	200232495
200139939	200206201	200237831
200150444	200206877	200244126
200154790	200210094	
200170128		

Non-Cited Violations and Findings ReviewedNCV 05000412/2005007-01, Failure to Demonstrate Effective Maintenance on the Unit 2 TDAFW
Steam Admission ValvesFIN 05000412/2005007-02, Switchyard Transient Caused by Crane That Damaged 345kV
Transmission LineNCV 05000334/2005007-03, Overpower Event Caused by Inadvertent Opening of a Feedwater
Heater Bypass Valve

NCV 05000412/2005007-04, Degraded Service Water System Pipe Support

NCV 05000334/2005008-01, Procedure Error Resulted in Unexpected Inoperability of the 'A'
Motor-Driven Auxiliary Feedwater PumpNCV 05000412/2006002-02, Inadequate Corrective Actions to Resolve MSSV Component
Deficiencies

NCV 05000412/2006004-01, Failure to Verify Adequacy of Temporary Design Modification

NCV 05000334/2006004-02, Ineffective Corrective Action to Resolve Sleeve Bearing Set Screw Position

NCV 05000334/2006004-03, Hot Work Results in Fire in Unit 1 West Cable Vault

NCV 05000334(412)/2006006-01, Security-Related Inspection Finding

System Health Reports

Unit 1 Auxiliary Feed Water System, 4th Quarter 2005

Unit 1 Auxiliary Feed Water System, 2nd Quarter 2006

Unit 1 Auxiliary Feed Water System, 4th Quarter 2006

Unit 2 Auxiliary Feed Water System, 4th Quarter 2006

Unit 1 Radiation Monitoring System, 4th Quarter 2006

Unit 2 Radiation Monitoring System, 4th Quarter 2006

Unit 1 River Water System, 4th quarter 2006

Reactor Control and Protection System, 4th Quarter 2006

480V Station Service System, 4th Quarter 2006

4kV Station Service System, 4th Quarter 2006

Miscellaneous

10 CFR Part 21 Notification 2005-06-00

BVPS Operations Excellence Plan dated January 29, 2007

BVPS Human Performance Program Summary dated September 7, 2006

BVPS Monthly Performance Report - December 2005

BVPS Monthly Performance Report - December 2006

BVPS Monthly Performance Report - January 2007

BVPS Monthly Status Condition Reports - December 2006

BVPS Monthly Status Condition Reports - January 2007

BVPS Safety & Human Performance Center Activity Guide for BV2-R12, Rev. 4

Employee Concerns Program Issues Log from August 2005 to December 2006

Engineering Change Package 03-0637, Addition of Desiccant Breather Caps to AFW

Engineering Change Package 04-0388

Engineering Change Package 06-0140

FENOC Supervisory Briefing, "Procedure Use and Adherence," dated March 5, 2007

FITS Qualification Matrix, Maintenance Group for Auxiliary Feedwater Pump, March 26, 2007

LER 05000334-2005-02

LER 05000412-2006-01

NRC Generic Letter 2006-01

NRC Information Notice 2007-05

Regulatory Affairs Administration Manual, Vol II, Chapter 7 Attachment 7.D, "Reportability Determinations and Licensee Event Reports Processing - 10CFR21 Evaluation Process Flow Chart", Rev. 12

Security Department watch-bill, dated March 27, 2007

TMOD 02-05-15

Unit 1 Tech Spec / LRM Action Items in Effect, list dated April 5, 2007

Unit 1 & Unit 2 Chemistry Daily Status Report, dated March 29, 2007

Work Order Database for Security Department, dated April 2, 2007

Calibration data from last 5 calibrations for one channel of RWST level in Unit 1 and Unit 2

Calibration data from last 5 calibrations for one channel of Steam General Water level in Unit 1 and Unit 2

FENOC Company Nuclear Review Board Beaver Valley Power Station January 12, 2007 Meeting Minutes

LIST OF ACRONYMS

ACE	Apparent Cause Evaluation
ADAMS	Agency Document Administrative Management System
AFI	Area for Improvement
AFW	Auxiliary Feedwater System
BVPS	Beaver Valley Power Station
CAP	Corrective Action Program
CAQ	Condition Adverse to Quality
CARB	Corrective Action Review Board
CFR	Code of Federal Regulations
CR	Condition Report
CREST	Condition Report Evaluation and Status Tracking System
DRP	Division of Reactor Projects
ECP	Employee Concerns Program
FENOC	FirstEnergy Nuclear Operating Company
IN	NRC Information Notice
IP	NRC Inspection Procedure
IPA	Integrated Performance Assessment
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LRM	License Requirement Manual
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
OE	Operating Experience
PI&R	Problem Identification & Resolution
ROP	Reactor Oversight Program
RIS	Regulatory Information Summary
SA	Self-Assessment
SAP	SAP Multi-Management Work Tracking System
SCAQ	Significant Conditions Adverse to Quality
SCWE	Safety Conscious Work Environment
SDP	Significance Determination Process
SOP	System Operating Procedure
WO	Work Order