September 8, 2003

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

SUBJECT: BEAVER VALLEY POWER STATION - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000334/2003008 AND 05000412/2003008

Dear Mr. Pearce:

On July 25, 2003, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at the Beaver Valley Power Station. The enclosed inspection report documents the inspection results, which were discussed on July 25, 2003, with you and members of your staff.

The 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 with the conditions of your license. The inspection involved examination of selected procedures and representative records, observation of activities, and interviews with personnel.

On the basis of the sample selected for review, the team concluded, in general, that problems were properly identified, evaluated, and corrected. There were two green findings identified during this inspection associated with the failure to implement appropriate corrective actions following the use of test instrumentation that exceeded the specified calibration periodicity and for the failure to evaluate the adequacy of planned actions to replace molded case circuit breakers following adverse test results. The findings were determined to involve violations of NRC requirements. However, because of the very low safety significance and because they were entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs) consistent with Section VI.A of the NRC Enforcement Policy. If you contest either NCV in this report, 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 Beaver Valley.

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 the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

The team identified several examples in which the documentation of evaluations and corrective actions were not thorough; although the issues were eventually determined to be adequate.

Sincerely,

/RA/

Raymond K. Lorson, Chief
Performance Evaluation Branch
Division of Reactor Safety

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

Enclosure: Inspection Report 050000334/2003008; 050000412/2003008
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos:	05000334, 05000412
License Nos:	DPR-66, NPF-73
Report Nos:	05000334/2003008, 05000412/2003008
Licensee:	First Energy Nuclear Operating Company
Facility:	Beaver Valley Power Station
Location:	Shippingport, Pennsylvania 15077
Dates:	July 7 - 11, 2003 and July 21 - 25, 2003
Inspectors:	Barry Norris, Senior Reactor Inspector (Team Leader) Richard Barkley, Senior Project Engineer Aneillo DellaGreca, Senior Reactor Inspector Galen Smith, Beaver Valley Resident Inspector
Approved by:	Raymond K. Lorson, Chief Performance Evaluation Branch Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000334/2003-008, IR 05000412/2003-008; 07/07/2003 - 07/25/2003; Beaver Valley Power Station Units 1 and 2; biennial baseline inspection of the identification and resolution of problems.

The inspection was conducted by three regional inspectors and one resident inspector. Two Green non-cited violations were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using 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

Based on the sample selected for review, the inspection team concluded that the implementation of the corrective action program at the Beaver Valley Power Station was acceptable. In general, personnel identified problems at an appropriate threshold and initiated a condition report (CR) to enter them into the corrective action program. Audits and self-assessments identified adverse conditions and negative trends, and the results were entered into the corrective action program. The licensee's evaluations were generally adequate to reasonably identify the causes of problems and provide for corrective actions. However, the team identified several examples in which the documentation of evaluations and corrective actions was not thorough. Two issues involving the failure to take corrective actions following the use of un-calibrated measuring and test equipment and the failure to evaluate the impact of adverse test results on molded case circuit breakers were determined to be findings of very low safety significance (Green). The findings were also determined to be a violations of NRC requirements.

Inspector Identified Findings

Cornerstone: Mitigating Systems

- **Green.** The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because First Energy Nuclear Operating Company (FENOC) failed to properly evaluate a condition adverse to quality involving the trip function of molded case circuit breakers (MCCBs).

  The finding was greater than minor since potentially degraded MCCBs remained in-service and a fault on a supplied load could have resulted in the loss of an entire motor control center and, hence, affect the ability of multiple safety-related systems to perform their safety-related function. The finding was of very low safety significance since no actual conditions were identified where a motor control center was lost as a result of this problem. (Section 4OA2.b(2))

- **Green.** The inspectors identified a non-cited violation of 10CFR50, Appendix B, Criterion XVI, “Corrective Action,” for failure to ensure that a significant condition adverse to quality was promptly identified and corrected. Specifically, the licensee used uncalibrated measuring and test equipment (M&TE) during a surveillance test of safety-related equipment.

  The finding was greater that minor because the use of un-calibrated M&TE during surveillance tests of safety-related systems affected the availability and reliability of safety-related mitigating systems required to respond to initiating events. The use of un-calibrated test equipment could result in the failure to identify unavailable mitigating equipment. The finding was of very low safety significance since an actual loss of the safety function of any mitigating system did not occur or go undetected. (Section 4OA2.c(2))

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

a. Effectiveness of Problem Identification

(1) Inspection Scope

The team reviewed the procedures that described the corrective action process used by the First Energy Nuclear Operating Company (FENOC) and determined that the Beaver Valley Power Station (BVPS) identified problems primarily through the initiation of condition reports (CRs). The team reviewed selected CRs and attended daily management meetings where the CRs were screened for significance to determine whether BVPS was identifying, accurately characterizing, and entering problems into the corrective action process at an appropriate threshold.

The CRs selected for review are listed in the Attachment and covered the period from the last NRC problem identification inspection in July 2001 to the present. The team selected the CRs to cover the seven cornerstones of safety identified in the NRC's Reactor Oversight Process (ROP). In addition, the team considered risk insights from BVPS's probabilistic safety assessment (PSA) to focus the CR sample selection on risk significant plant equipment. The team also interviewed selected plant staff to determine their understanding of the process used to address problems. The team conducted walkdowns of the control room and selected areas of the plant, to independently assess whether problems were properly identified and addressed.

The team selected items from BVPS's operations, maintenance, engineering, health physics, emergency preparedness, security, and oversight processes to verify that BVPS appropriately considered problems identified in these areas for entry into the corrective action program. Specifically, the team reviewed a sample of work requests, engineering change requests, operator log entries, control room deficiency and work-around lists, operability determinations, engineering system health reports, completed surveillances, installed temporary modification packages, quality assessment reports, and departmental self-assessments. The documents were reviewed to ensure that underlying problems associated with each issue were appropriately considered for resolution via the corrective action process. The documents reviewed are listed in the Attachment.

(2) Observations and Findings

No findings of significance were identified.

Based on the sample reviewed, the team concluded that BVPS was adequately identifying problems and entering them into the corrective action process. The CRs generally described and characterized the problems and, as appropriate, identified prior similar occurrences. In addition, the team concluded that personnel initiated corrective action CRs for problems identified in other BVPS processes that met the CR threshold.

The inspectors concluded that the quality assurance audits and department self-assessments were generally effective at identifying adverse conditions and trends.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed the CRs listed in the Attachment to determine whether BVPS adequately evaluated and prioritized problems. The review included the appropriateness of the assigned significance, the timeliness of resolutions, and the scope and depth of the causal analysis. The CRs reviewed encompassed the full range of BVPS evaluations, including root and apparent cause evaluations. The team selected the CRs to cover the seven cornerstones of safety identified in the ROP. The team also considered risk insights from the PSA to help focus the CR sample.

The team reviewed the CRs associated with the non-cited violations (NCVs) issued since the last PI&R inspection, to determine whether BVPS properly evaluated and resolved these issues. The team reviewed BVPS's evaluation of industry operating experience information for applicability to their facility. The team also reviewed equipment operability determinations, reportability assessments and extent of condition reviews for selected problems. The team further reviewed equipment performance results and assessments documented in completed surveillance procedures, operator log entries, and trend data to determine whether BVPS's equipment performance evaluations were technically adequate to identify degrading or non-conforming equipment.

(2) Observations and Findings

The team determined that the CRs reviewed were properly classified for significance. The team noted that "significant conditions adverse to quality" (SCAQs) received a formal root cause analysis (RCA), and an extent-of-condition review. Condition reports classified as a "condition adverse to quality" (CAQ) typically received an apparent cause evaluation (ACE). The quality of the RCAs and ACEs reviewed varied; however, the team noted that the causal determinations performed in the last year were generally more detailed and thorough, with better correlation between the causes and the corrective actions, and with corrective actions to preclude recurrence. The items in the engineering and maintenance backlogs had been evaluated for risk (individually and collectively). The majority of the CRs were for minor issues and were classified as "not a condition adverse to quality" (NCAQ) and generally corrected on the spot and closed.

Notwithstanding the above, the team identified an inadequate evaluation that was dispositioned as a Green finding.

Molded-Case Circuit Breakers

Introduction. The team identified a Green non-cited violation of 10CFR50, Appendix B, Criterion XVI, "Corrective Actions," for the failure to properly evaluate the impact of molded case circuit breaker problems identified during testing.

Description. In 2001, in response to a NRC finding regarding the adequacy of surveillance and preventive maintenance testing on molded-case circuit breakers (MCCBs), BVPS initiated a MCCB replacement program for both units. The newly installed Unit 1 MCCBs tripped unexpectedly during post-modification testing. While investigating this anomaly BVPS identified significant problems associated with the operation of the MCCB's that had been originally installed in the plant. The specific problems included: the trip times exceeded the expected maximum time when subjected to a current in excess of the breaker instantaneous trip setpoint; the trip times for some of the MCCBs approached or exceeded 100 milliseconds; some of the MCCBs actuated only when the injected current was well in excess of the setpoint positive tolerance; and some MCCB poles did not open when more than twice the amount of trip current was injected. The team determined that the test results indicated that the Unit 1 MCCBs, which had not been replaced, could fail to trip during a faulted condition and affect the reliability of other safety-related components.

The team reviewed the breaker coordination curves and the results of the short circuit analysis to address the impact of the breaker trip problem on the motor control center (MCC) MCCBs installed in the plant. The team found that the settings specified by the analysis provided an acceptable coordination between the largest breaker on the MCC bus and the upstream MCC supply breaker. However, the team noted that if the breaker trip problem affected the larger MCCBs, a fault could result in the concurrent tripping of the MCC supply breaker and subsequent loss of loads powered from the MCC. The team determined that the potential impact of the breaker trip problem had not been properly evaluated to ensure that the planned actions and schedule for replacement of the MCCBs was appropriate. Prior to the inspection, five 100 ampere Unit 1 MCCBs had not been replaced. Subsequently, two MCCBs were tested and found to be acceptable, one MCCB was replaced without testing and the remaining two MCCBs were scheduled for replacement later this year.

Analysis. The deficiency associated with this issue was the failure to properly evaluate the potential impact associated with adverse test results for MCCBs. This finding was greater than minor since potentially degraded MCCBs remained in-service that could have resulted in the loss of a motor control center subsequent to a single circuit fault condition. The loss of an entire motor control center could affect the ability of multiple safety-related systems to perform their safety-related functions. This issue was applicable to the mitigating systems cornerstone since the motor control centers are considered risk-significant safety-related support equipment, and required to provide power to accident mitigating emergency equipment. The team evaluated the significance of this finding using the Phase I worksheet in accordance with the NRC Significance Determination Process (SDP) using Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for at Power Situations."

The finding was determined to be of very low safety significance (Green) in the Phase I SDP, since no specific example had been identified where a MCC was lost as a result of this problem. Additionally, the team noted that the initiating fault required to challenge the affected electrical components was considered to be a low probability event for equipment operating in mild environmental conditions.

Enforcement. 10CFR50, Appendix B, Criterion XVI, "Corrective Action," requires that measures be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to the above, during the testing of safety-related Unit 1 molded-case circuit breakers that had been removed from service in 2001, BVPS failed to implement prompt measures to evaluate the impact of an adverse condition that potentially affected the trip function for breakers which remained in-service. Because this failure was of very low safety significance and has been entered into the BVPS corrective action program (CRs 03-08134 and 03-07864), this violation is being treated as a NCV, consistent with Section VI.A of the NRC Enforcement Policy.
NCV 50-334/03-008-01, Failure to re-evaluate a condition adverse to quality associated with the performance of MCCBs during testing.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed the CRs listed in the Attachment to determine whether the actions addressed the identified causes of the problems. The team reviewed BVPS's timeliness in implementing corrective actions and their effectiveness in preventing recurrence of significant conditions adverse to quality.

(2) Observations and Findings

M&TE Usage During a Surveillance Testing

Introduction. The inspectors identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, "Corrective Action," for failure to ensure that a significant condition adverse to quality involving the use of un-calibrated test instrumentation was promptly identified and corrected.

Description. On March 16, 2003, surveillance test procedure 1OST-11.14A, "LHSI [Low Head Safety Injection] Full Flow Test," was performed, as required by Technical Specification 4.0.5 as part of the In-Service Testing (IST) program. One of the procedural requirements was to use calibrated test equipment; however, the test was performed using two (out of three) portable ultrasonic flow meters (Controlotrons) that had exceeded their specified calibration periodicity. Several CRs were generated to document this problem (CRs 03-03246, 03-03422, and 03-04183). BVPS subsequently developed an engineering evaluation and performed additional testing to demonstrate that the "out of calibration" instruments were acceptable for use in this test application.

A Plant Operations Review Committee (PORC) meeting was convened to review and ultimately approved the engineering evaluation. The team interviewed the IST engineer and the PORC Chairman and noted that the intent was to allow use of the "out of calibration" instruments on a one time basis and determined that the justification for acceptance of this specific surveillance test was satisfactory. The team observed that BVPS did not address the cause for the use of the improper instrumentation, extent of condition and did not implement any actions to prevent recurrence.

While reviewing this problem, the team identified that CR 02-08396 which had been written on September, 26, 2002, identified that the two instruments discussed above had exceeded their calibration frequencies, and requested that alternate testing equipment be procured since these instruments were unable to be removed from the radiologically controlled area due to external contamination. This equipment was removed from the M&TE program, and labeled that they were not to be used for quantitative or qualitative analysis. This corrective action failed to prevent the use of these instruments during the March 2003 testing.

The team also identified that CR 03-03422 was generated to conduct an extent of condition review to ensure that these instruments had not been used in any other surveillance tests. The team determined that the extent of condition review had never been performed. Following the teams' review, BVPS determined that several other procedures required the use of the same flow instruments. The team also determined that procedure BVT-1.30.3, "Service Water Heat Exchanger Performance Program," conducted in April 2003 at Unit 2, was performed using test equipment beyond its calibration due date. Condition Report 03-08121 was written to address this issue.

Analysis. The inspectors determined that the failure to use calibrated M&TE during surveillance tests of safety-related systems was more that minor because it affected the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events; specifically, the equipment performance attribute cornerstone objective. The use of un-calibrated test equipment could result in the failure to identify unavailable mitigating equipment. The team performed a Phase 1 evaluation using NRC MC 0609, Appendix A, "Significance Determination Process (SDP) for at Power Situations," and determined that it was of very low safety significance (Green) since an actual loss of the safety function of any mitigating system did not occur or go undetected.

Enforcement. 10CFR50 Appendix B, Criterion XVI requires that significant conditions adverse to quality be promptly identified and corrected, and that the cause be determined and corrective actions taken to prevent recurrence. Contrary to the above, in September 2002, BVPS identified un-calibrated test equipment but failed to implement adequate actions to prevent its use during surveillance testing of safety-related systems in March 2003 at Unit 1 and April 2003 at Unit 2. However, because the issue is of very low safety significance (Green) and is in the BVPS corrective action program (CR 03-08121), this issue is being treated as a NCV consistent with Section VI.A of the NRC Enforcement Policy. **(NCV 50-334, 50-412/03-008-02)**, Failure to Take

Corrective Actions for a Significant Condition Adverse to Quality Involving the Use of Uncalibrated M&TE.

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

Team members interviewed plant staff, observed various activities throughout the plant, and attended a cross section of meetings to determine if conditions existed that would result in personnel being hesitant to raise safety concerns to their management and/or the NRC.

(2) Findings

No findings of significance were identified.

4OA6 Meetings, including Exit

The team presented the inspection results to Mr. W. Pearce, Site Vice-President, and other members of the Beaver Valley staff on July 25, 2003. The FENOC management personnel acknowledged the results presented.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel:

D. Battina	Employee Concerns Program Site Lead
R. Bisbee	Supervisor, Corrective Action Program
R Brosi	Manager, Maintenance
G Caccianni	PORC Chairman
R. Drew	Superintendent, Nuclear Integrated Procedures Group
J. Fontaine	Radiation Protection Specialist
R. Hansen	Manager, Nuclear Quality Assessment
D. Held	Superintendent, Unit 1 Operations
D Jones	IST Engineer
R Lieb	Manager, Plant Engineering
V. Linnenbom	Supervisor, Chemistry
R. Lubert	Supervisor, Design Engineering
C. Mancuso	Supervisor, Design Engineering
M. Manoleras	Manager, Design Engineering
D. Mickinac	Engineer, Regulatory Compliance
L Miklavic	Nuclear Analyst
L. Pearce	Site Vice President
M. Pergar	Supervisor, Nuclear Quality Assessment
P. Sena	Manager, Operations
B. Sepelak	Supervisor, Regulatory Compliance
J. Sipp	Manager, Radiation Protection
P. Slifkin	Preventive Maintenance Coordinator
T Turner	Supervisor, Maintenance and Test Equipment
S. Vicinie	Manager, Nuclear Emergency Planning

NRC Personnel:

D. Kern	Senior Resident Inspector

ITEMS OPENED AND CLOSED

Opened & Closed:

50-334/03-008-01	NCV	Failure to re-evaluate a condition adverse to quality associated with the performance of MCCBs during testing (Section 4OA2.b(2))
50-334, 50-412/03-008-02	NCV	Failure to take corrective actions for a significant condition adverse to quality involving the use of un-calibrated M&TE (Section 4OA2.c(2))

DOCUMENTS REVIEWED

Procedures:

1,2 ADM-0703	Event Review, Revision 00
1,2 ADM-2028	Temporary Modifications, Revision 1
1,2 CP-108	Barton Series 288A,289A,583A and Meriam Series 1220 Differential Pressure Indicating Switches Calibration, Revision 01
1,2 OM-48.1.1	Technical Specification Compliance, Revision 13
1MSP-21.19-I	P-1MS474, Loop 1 Steamline Pressure Protection Channel II Calibration, Revision 7
1OST-11.4A	LHSI Full Flow Test, Revision 12
2BVT-1.30.3	Service Water Heat Exchanger Performance Program, Revision 7
2OST-15.1	Primary Component Cooling Water Pump [2CCP*P21A] Test, Revision 30
2OST-15.2	Primary Component Cooling Water Pump [2CCP*P21B] Test, Revision 32
2OST-15.3	Primary Component Cooling Water Pump [2CCP*P21C] Test, Revision 32
NOBP-LP-2007	Condition Report Process Effectiveness Review, Revision 01
NOBP-LP-2008	Corrective Action Review Board, Revision 01
NOBP-LP-2009	FENOC CR Process Reference Guide, Revision 00
NOBP-LP-2010	CREST Trending Codes, Revision 00
NOBP-LP-2011	FENOC Root Cause Analysis Reference Guide, Revision 00
NOP-LP-2001	Condition Report Process, Revision 04
NPDAP 8.19	Control and Calibration of Measuring and Test Equipment, Revision 6

Non-Cited Violations:

01-07-01	Failure to properly implement a maintenance procedure resulted in additional unavailability
01-08-01	Inadequate corrective action for mis-performance of safety related procedures
01-09-01	Failure to prescribe and verify auxiliary feedwater pump turbine oil level requirements
01-09-02	Failure to verify plant configuration causes reactor vessel overfill, increased plant risk, and increased radiation exposure
01-09-03	Failure to isolate pressurizer relief tank gas sample line
01-10-01	Human performance, communication, and procedural adherence deficiencies during safety-related maintenance
01-11-01	Failure to evaluate test failures associated with two molded case circuit breakers
02-03-02	Decreased the effectiveness of the E-Plan without prior NRC approval
02-05-01	Failure to promptly correct a condition adverse to quality on the Unit 2 TDAFW pump
02-06-01	Poor maintenance (human performance) causes excessive corrosion
02-06-02	Human error when connecting test equipment for ST makes 2-2 EDG
02-07-01	Untimely and incomplete corrective actions regarding
02-11-01	Unit 2 service water pit flood protection barrier not maintained during design
02-11-02	Recirculation spray radiation monitor cooler flows not accounted for in service water
02-12-01	Design control - failure to establish suitable acceptance limits for gas void

02-12-02	Design control - failure to properly implement and test a plant modification
03-02-01	Ineffective corrective actions to address degraded instrument air system performance
03-02-02	Failure to properly test 4.15 kV bus protection relay modification causes loss of 4160
03-02-05	Failure to adequately control scaffold activities causes main steam isolation valve closure

Quality Assurance Audits:

BV-C-01-10	Engineering and Design Control
BV-C-01-11	Health Physics Program Audit
BV-C-02-02	BVPS Nuclear Quality Assessment Report for 2nd Quarter 2002
BV-C-03-01	BVPS Nuclear Quality Assessment Report for 1st Quarter 2003
BV-C-03-02	NQA Post-Assessment Conference, Second Quarter 2003

Self-Assessments:

BV-SA-01-32	Maintenance Effectiveness on Borg Warner Actuators
BV-SA-01-50	Quality and Content of Abnormal Operating Procedures and Alarm Response Procedures, June 2001
BV-SA-02-19	Operator Work Around, December 2002
BV-SA-02-43	Material Search
BV-SA-02-49	Equipment Reliability Gap Analysis
BV-SA-02-64	Preventive Maintenance Deferral Process
BV-SA-02-68	Analysis of Plant Evaluation AFI PS.1-1, September 2002
BV-SA-03-11	Human Performance, June 2003
BV-SA-03-47	BVPS Lubrication Receipt, Storage, Handling, and Distribution, May 2003
BV-SA-03-68	BVPS Implementation of the Requirements of NUREG 0654, Table B.1, May 2003
BV-SA-03-72	License Operator Initial Training Program, March 2003

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

00-03697	01-05019	01-06834	02-00037	02-01597	02-04182	02-06167
01-03234	01-05028	01-07069	02-00194	02-01869	02-04452	02-06189
01-03245	01-05029	01-07081	02-00263	02-02056	02-04472	02-06333
01-03290	01-05086	01-07119	02-00277	02-02108	02-04594	02-06381
01-03291	01-05095	01-07171	02-00289	02-02202	02-04882	02-06595
01-03305	01-05786	01-07211	02-00350	02-02314	02-04894	02-06600
01-03310	01-05813	01-07242	02-00354	02-02361	02-05018	02-06601
01-03430	01-06166	01-07279	02-00596	02-02374	02-05084	02-06831
01-03785	01-06267	01-07417	02-00653	02-02782	02-05173	02-06901
01-03794	01-06270	01-07501	02-00820	02-02839	02-05369	02-06992
01-04201	01-06364	01-07634	02-00823	02-02933	02-05419	02-07114
01-04482	01-06610	01-07681	02-00844	02-03263	02-05701	02-07185
01-04639	01-06700	01-07760	02-01449	02-03392	02-05869	02-07429
01-04653	01-06745	01-07966	02-01504	02-03780	02-06037	02-07508
01-04857	01-06752	01-08420	02-01548	02-03798	02-06090	02-07573

02-07626	02-10089	02-11432	03-02037	03-05950	03-07729	03-07748
02-07670	02-10109	02-11595	03-02093	03-06136	03-07730	03-07750
02-08291	02-10167	03-00044	03-02166	03-07102	03-07731	03-07751
02-08325	02-10175	03-00113	03-02553	03-07437	03-07733	03-07864*
02-08396	02-10179	03-00617	03-02631	03-07697	03-07734	03-07921
02-08474	02-10204	03-00719	03-03119	03-07706	03-07735	03-07921*
02-08759	02-10208	03-00773	03-03246	03-07714	03-07736	03-07930*
02-08775	02-10217	03-00861	03-03422	03-07717	03-07737	03-07941
02-09020	02-10258	03-00919	03-04183	03-07718	03-07738	03-07941*
02-09322	02-10445	03-01002	03-04364	03-07719	03-07739	03-08035
02-09365	02-10505	03-01113	03-04528	03-07720	03-07740	03-08080*
02-09453	02-10762	03-01211	03-04846	03-07721	03-07741	03-08083*
02-09478	02-10926	03-01218	03-05338	03-07722	03-07742	03-08115*
02-09508	02-10983	03-01584	03-05404	03-07723	03-07743	03-08121*
02-09552	02-11132	03-01821	03-05578	03-07724	03-07745	03-08134*
02-09627	02-11243	03-01995	03-05949	03-07728		

Work Orders:

WO 01-017409-000 WO 01-017409-003 WO 01-017453-000 WO 01-017453-003

Miscellaneous Documents:

11700-ESK-128F - Time-Current Curve for 480V MCC-1E5

2-02-001, Basis for Continued Operation - 2CHS-E25B SWS Low Flow

BVPS Monthly Status Report for Condition Reports for March, April, May 2003

Calculation 10080-DEC-0229, Determination of Relay Scaling Voltages for Unit 2 Technical Specifications Tables 3.3.1, 3.3.3, and LRM Tables 3.10-1, 3.10-2, Rev. 0

Calculation 10080-N-785, Revision 1 & 2, Minimum Service Water Pressure Setpoint to Protect SWS Pumps from Run-out Conditions

Design Basis Assessment Report - April Through June 2003

Engineering Change Packages - 1R15 Outage (March - April 2003)

IEEE Standard 1290-1996 - IEEE Guide for Motor Operated Valve (MOV) Moto Application, Protection, Control, and Testing in Nuclear Power Generating Stations

LER 2002-001-00, Service Water Conditions for the Recirculation Spray System Lead to Technical Specification Noncompliance

Licensee Event Report (LER) 50-334/2002-002-00, “Manual Reactor Trip During Planned Shutdown Due to Turbine Monitoring Alarm”

Maintenance Rule System Basis Document, Primary Component and Neutron Shield Tank Cooling Water System - System 15, Revision 4

Monthly Status Reports - Condition Reports (June 2003)

PORC Poll #P-233, Evaluation of Use of Non-Calibrated Controlotrons for ASME XI Check Valve Testing During Performance of 1OST-11.14A

PORC Meeting Minutes from Meeting Number BV-PORC-03-06, & BV-PORC-03-07

Procedure for Testing Beaver Valley Nuclear Station MCCB

Process Change Training slides for Condition Reporting Procedure, NOP-LP-2001, Revision 4

Root Cause Analysis Report for CR 03-05338, Improvement Needed in Contamination Controls at BV Site

Short Circuit Study Summary Report
Technical Evaluation Report 13684, Licensing Amendment Request 2A-15B Implementation - Impact to BV-2 RTS/ESFAS Relays, Revision 0
Time-Current Curves for Allen-Bradley MCP Circuit Protectors
Universal Clamp-on Portable Flowmeter Field Manual
WANO Peer Review of Beaver Valley Power Station, October 2002

ACRONYMS USED

ACE	Apparent Cause Evaluation
BVPS	Beaver Valley Power Station
CAQ	Condition Adverse to Quality
CFR	Code of Federal Regulations
CR	Condition Report (i.e., deficiency document)
CREST	Condition Report Evaluation and Status Tracking (computer database)
FENOC	First Energy Nuclear Operating Company
IP	NRC Inspection Procedure
MCC	Motor Control Center
M&TE	Measuring and Test Equipment
MCCB	Molded-Case Circuit Breaker
NCAQ	Not a Condition Adverse to Quality
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
PI&R	Problem Identification and Resolution
PSA	Probabilistic Safety Assessment
RCA	Root Cause Analysis
ROP	Reactor Oversight Process
SCAQ	Significant Condition Adverse to Quality
SDP	Significance Determination Process
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report