February 9, 2000

Mr. L. W. Myers
Senior Vice President
FirstEnergy Nuclear Operating Company
Post Office Box 4
Shippingport, Pennsylvania 15077

SUBJECT: NRC INTEGRATED INSPECTION REPORT NOS. 05000334/1999010 AND 05000412/1999010

Dear Mr. Myers:

This refers to the inspection conducted from November 27, 1999 to January 8, 2000, at the Beaver Valley Power Station facility. The enclosed report represents the results of this inspection.

During the 6-week inspection period, your conduct of activities at the Beaver Valley Power Station facility was generally characterized by good programmatic support for safe power operations. Cold weather equipment preparations, Year 2000 rollover contingency plans, and licensed operator requalification training were effectively implemented. Notwithstanding, several performance deficiencies, including deferred preventive maintenance tasks, led to the Unit 2 service water system being operated outside of its design basis for several days.

Based on the results of this inspection, an apparent violation was identified. This issue involved inadequate corrective actions for longstanding degraded river water and service water (SW) vacuum break check valves. Since 1991, these check valves have experienced repetitive problems caused by internal corrosion. Station personnel did not understand the potential safety significance of the degraded check valve performance and a permanent design change to install upgraded valves was not timely. On November 9, 1999, this longstanding degraded material condition resulted in a water hammer event that deformed an expansion joint challenging the operability of service water pump 2SWS-P21C. Prior to identification of the deformed expansion joint, operators removed a second SW pump from service for planned maintenance, thereby placing Unit 2 outside of its design basis for several days. No Notice of Violation is presently being issued for these inspection findings, pending further NRC inspection of your evaluation of the significance and circumstances of the event. In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding the apparent violation is required at this time.

In addition, the NRC has determined that one violation of NRC requirements occurred. The Severity Level IV violation is being treated as a Non-Cited Violation (NCV), consistent with Section VII.B.1.a of the Enforcement Policy (November 9, 1999; (64 FR 61142)). The NCV involved failure to properly implement your preventive maintenance program. The NCV is described in the subject inspection report. If you contest the violation or severity level of the NCV, 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, and the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room (PDR).

Sincerely,

/RA/

John F. Rogge, Chief
Projects Branch 7
Division of Reactor Projects

Docket Nos.: 05000334, 05000412
License Nos: DPR-66, NPF-73

Enclosure(s):
1. Inspection Report Nos. 05000334/1999010, 05000412/1999010
2. Beaver Valley Plant Performance Review Meeting Slides

cc w/encl:
K. Ostrowski, Plant General Manager
R. Fast, Director, Plant Maintenance
F. von Ahn, Director, Plant Engineering
R. Donnellon, Director, Projects and Scheduling
M. Pearson, Director, Plant Services
W. Pearce, Manager, Operations
M. Ackerman, Manager, Licensing
J. A. Hultz, Manager, Projects and Support Services, FirstEnergy
M. Clancy, Mayor, Shippingport, PA
Commonwealth of Pennsylvania
State of Ohio
State of West Virginia

Distribution w/encl(s):
Region I Docket Room (with concurrences)
Nuclear Safety Information Center (NSIC)
PUBLIC
NRC Resident Inspector
H. Miller, RA
J. Wiggins, DRA
J. Rogge, DRP
N. Perry, DRP
C. O'Daniell, DRP

Distribution w/encls (**VIA E-MAIL**):
J. Shea, OEDO
E. Adensam, PD1, NRR
S. Peterson, PDI-1, NRR
D. Collins, PM, PDI-1, NRR
V. Nerses, PDI-1 NRR
R. Correia, NRR
DOCDESK
Inspection Program Branch, NRR (IPAS)

DOCUMENT NAME: G:\BRANCH7\Beaver Valley\BV9910.wpd
To receive a copy of this document, indicate in the box: "**C**" = Copy without attachment/enclosure "**E**" = Copy with attachment/enclosure "**N**" = No copy

OFFICE	RI/DRP		RI/DRP				/	
NAME	Dkern NSP f/		Jrogge JFR					
DATE	02/07/00		2/08/00					

OFFICIAL RECORD COPY

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

License Nos.	DPR-66 NPF-73
Report Nos.	05000334/1999010 05000412/1999010
Docket Nos.	05000334 05000412
Licensee:	FirstEnergy Nuclear Operating Company Post Office Box 4 Shippingport, PA 15077
Facility:	Beaver Valley Power Station, Units 1 and 2
Inspection Period:	November 27, 1999 through January 8, 2000
Inspectors:	D. Kern, Senior Resident Inspector G. Dentel, Resident Inspector G. Wertz, Resident Inspector L. Briggs, Senior Operating Engineer S. Pindale, Reactor Inspector
Approved by:	J. Rogge, Chief Projects Branch 7 Division of Reactor Projects

EXECUTIVE SUMMARY

Beaver Valley Power Station, Units 1 & 2
NRC Inspection Report 05000334/1999010 & 05000412/1999010

This integrated inspection included aspects of licensee operations, engineering, and maintenance. The report covers a 6-week period of resident inspection; in addition, it includes the results of announced inspections by operator licensing and engineering specialist inspectors.

Operations

- Procedures for cold weather preparations were properly performed. Operations, engineering, and maintenance personnel communicated well to appropriately prioritize repairs of degraded cold weather protection equipment. Compensatory measures were properly applied for the instances where repairs were not completed prior to the onset of freezing temperatures. Overall material readiness for cold weather was good. (Section O2.1)

- Reviews of past technical evaluation reports for impact on operating procedures were scheduled appropriately and properly addressed concerns raised from an August 1999 NRC violation (NCV 99-06-01). No operability or significant procedural issues were identified during independent reviews of the technical evaluation report backlog. (Section O3.1)

- The Licensed Operator Requalification Training program content was balanced and met the needs of the operators. The facility presented appropriate, well prepared training both in the classroom and simulator. The feedback process, as part of the systems approach to training program, was effective. Selected industry events, which were applicable to Beaver Valley's operators, were properly incorporated into the training. (Section O5.1)

- Written and operating exam content met regulatory requirements; however, two deficiencies were noted. The process for administering the annual/biannual requalification exams has a potential for exam security compromise (Condition Report 993236). Also, licensed operators were evaluated as a crew during simulator scenario exercises, rather than receiving formal individual evaluations, unless they fail to perform a critical task (Condition Report 993235). In addition, the inspectors noted that evaluation techniques had the potential for bias. (Section O5.1)

- In general, the licensee met the regulatory requirements associated with licensed operator medical examinations and training. Two minor record keeping deficiencies were identified for individual operators (Condition Report 993237). (Section O5.1)

Executive Summary

- The employee concern program provided an effective means for concerned individuals to raise safety issues and receive feedback concerning how their issues were resolved. (Section O8.1)

- Station personnel and equipment systems were properly prepared for the Year 2000 (Y2K) computer rollover. Monitoring and contingency plans were comprehensive and were effectively implemented. Industry experience was monitored during the Y2K rollover and promptly communicated to the control room staff. (Section O8.2)

- Untimely identification of a water hammer event permitted an unanalyzed Unit 2 plant configuration (two inoperable service water pumps) to exist for several days. Neither the outside tour operator, nor the work control center senior reactor operator recognized that a damaged service water pump discharge pressure gage may be an indicator of a water hammer event. (Section M2.2)

Maintenance

- Two maintenance activities were conducted safely and in accordance with procedures. (Section M1.1)

- Five surveillance tests were performed safely and in accordance with proper procedures. (Section M1.2)

- Preventive maintenance (PM) tasks were deferred beyond their periodicities without the proper evaluations required by the PM program procedure. Failure to perform PMs on safety related equipment is a violation of Technical Specification (TS) 6.8.1. This severity IV violation is being treated as a Non-Cited Violation, consistent with Section VII.B.1.a of the NRC enforcement policy (Condition Report 993581). (Section M2.1)

- Previous corrective actions to improve the preventive maintenance (PM) program were not performed in a timely fashion and exacerbated the PM program deficiencies. In addition, performance indicators were not used effectively to identify a degrading trend in the scheduled performance of PM tasks. Quality Services Unit personnel did not provide effective oversight of previously identified preventive maintenance program deficiencies. (Section M2.1 and M7.1)

- The Multi-Discipline Analysis Team assessment of preventive maintenance program deficiencies was detailed and critical. Interim corrective actions were comprehensive. (Section M2.1)

- Inadequate corrective actions for a longstanding degraded material condition resulted in a water hammer event on November 9, 1999, that deformed an expansion joint and created an adverse condition which challenged the operability of service water pump 2SWS-P21C. Plant personnel missed opportunities to identify and take appropriate actions in response to this condition. Prior to identification of the deformed expansion joint on November 21, 1999, operators removed a second service water pump from service for planned maintenance, thereby placing Unit 2 outside of its design basis. Performance weaknesses included poor understanding of the potential safety significance of the degraded material condition, preventive maintenance deficiencies, untimely assessment and design change implementation, and poor communications during the event investigation. (Section M2.2)

- The out-of-service time for the supplementary leak collection and release system (primary auxiliary building ventilation) was extended due to poor planning and poor recognition of potential emergent work activities. Additional issues associated with high differential pressure across fire doors were appropriately captured in the condition report program. (Section M2.3)

- The 1999 Maintenance department self assessments and Quality Services Unit maintenance audit were critical and provided good insight for improvement. Corrective actions were scheduled and completed in a timely manner. (Section M7.1)

- Nuclear and procurement engineers were slow to respond to self assessment findings regarding control of parts. The lack of a timely response contributed to additional parts related problems and was a deficiency in the condition report program implementation. (Section M7.1)

Engineering

- Engineers completed a detailed and accurate evaluation in response to Generic Letter 98-02, “Loss of Reactor Coolant Inventory and Associated Loss of Emergency Mitigation Functions While in a Shutdown Condition.” (Section E1.1)

TABLE OF CONTENTS

Report Details

Summary of Plant Status

Unit 1 began this inspection period at 100 percent power and remained at or near full power throughout the period.

Unit 2 began this inspection period at 100 percent power. Over several weekend periods, the unit reduced power to approximately 50 percent in response to reduced system load requirements.

I. Operations

O1 Conduct of Operations

O1.1 General Comments (71707)

Using Inspection Procedure 71707, the inspectors conducted frequent reviews of ongoing plant operations. In general, the conduct of operations was professional and safety-conscious; specific events and noteworthy observations are detailed in the sections below.

O2 Operational Status of Facilities and Equipment

O2.1 Cold Weather Preparations

a. Inspection Scope (71707, 37551, 62707)

The inspectors reviewed station procedures and maintenance records, conducted interviews, and performed in-plant walkdowns to determine whether appropriate measures were implemented to protect safety-related components from the potential adverse effects of extreme cold weather.

b. Observations and Findings

Annual cold weather protection walkdowns were performed by station personnel during the period June through November 1999 using the following procedures:

- 1PMP-45-HEAT TRACE-1E, “Heat Trace Circuitry Operability and Setpoint Check,” Rev. 6
- 2PMP-45-HEAT TRACE-1E, “Heat Trace Circuitry Operability Checks,” Rev. 6
- 2PMP-45-HEAT TRACE-2E, “Heat Trace Circuitry Operability Checks,” Rev. 4&5
- 1OST-45.11, “Cold Weather Protection Verification,” Rev. 9&10
- 2OST-45.11, “Cold Weather Protection Verification,” Rev. 11
- 2PMP-45-SRM-HEAT TRACE-A-1I, “2HTS*PNLA1SG, Train A RWST Heat Tracing Control System Component Calibration,” Rev. 4.

The inspectors reviewed the completed procedures and determined that degraded material conditions were properly identified and documented. A more comprehensive Unit 1 cold weather equipment verification procedure was performed to add several components not previously inspected and improve overall baseline information for equipment performance monitoring. Station personnel were slow to complete the walkdowns on Unit 1 which delayed some corrective maintenance until after the onset of cold weather. Operations, engineering, and maintenance personnel met frequently in November to ensure corrective maintenance was properly planned, scheduled, and completed. The inspectors noted good communications and appropriate prioritization of pending repairs. Compensatory measures were properly applied for the instances where repairs were not completed prior to the onset of freezing temperatures.

The inspectors performed visual inspections of various cold weather protection equipment (e.g., piping heat trace circuitry, heaters, and protective enclosures) and determined that overall material readiness for cold weather was good. Numerous equipment repairs and upgrades were performed during the past year.

c. Conclusions

Procedures for cold weather preparations were properly performed. Operations, engineering, and maintenance personnel communicated well to appropriately prioritize repairs of degraded cold weather protection equipment. Compensatory measures were properly applied for the instances where repairs were not completed prior to the onset of freezing temperatures. Overall material readiness for cold weather was good.

O3 Operations Procedures and Documentation

O3.1 Reviews of Past Minor Engineering Modifications for Operation Department Procedure Changes

a. Inspection Scope (71707)

The inspectors reviewed the backlog of technical evaluation reports (TERs) awaiting evaluation for Operations department procedures revisions. The TERs were used for minor modifications and for evaluations of technical manual and parts changes. This area was inspected due to an August 1999 violation (NCV 99-06-01) associated with failure to evaluate a modification to the oxygen analyzer and incorporate appropriate procedure changes.

b. Observations and Findings

The Operations department has a backlog of approximately 1500 TERs to review and incorporate identified procedure revisions. The TERs date from 1990 to 1998 and were not reviewed due to various reasons. Corrective actions have been implemented to improve the process and produce timely reviews of the TERs. The inspectors examined a sample of the TER backlog and determined that some required no procedural changes and the others needed only minor revisions. The action plan developed to complete the review of TERs by the end of 2000 was appropriate based on the significance and the partial review completed at the end of 1998.

c. Conclusions

Reviews of past technical evaluation reports for impact on operating procedures were scheduled appropriately and properly addressed concerns raised from an August 1999 NRC violation (NCV 99-06-01). No operability or significant procedural issues were identified during independent reviews of the technical evaluation report backlog.

O5 Operator Training and Qualifications

O5.1 Licensed Operator Requalification Training Program Evaluation

a. Inspection Scope (71001)

The Beaver Valley Unit 1 Licensed Operator Requalification Training (LORT) program was evaluated during the week of October 25, 1999. The following areas were evaluated: 1) facility operating history; 2) LORT program content; 3) written and operating test content and administration; 4) training feedback program and remedial training; and 5) conformance with license medical and training requirements.

b. Observations and Findings

Facility Operating History

The inspectors reviewed the Licensee Event Reports (LER) for the years of 1998 and 1999. There were five LERs selected that appeared to be the result of either licensed operator errors or a possible training/knowledge deficiency. Discussion with the training staff and a review of previously used lesson plans indicated that training was appropriately conducted on plant events. Training on plant and industry events is routinely scheduled for the first day of each of the six training modules conducted each year. Discussions with the resident inspectors did not identify any licensed operator or training problems beyond those reviewed by the inspectors during the inspection.

LORT Program Content

The inspectors reviewed the subjects covered in the 1998-1999 LORT cycles, including a sample of training on plant modifications and industry events. The licensee was effectively incorporating appropriate topics in their LORT program. Operator interviews indicated that the operators were getting the training required for them to do their jobs.

Written and Operating Test Content and Administration

The inspectors reviewed four of the five written exams for the current exam cycle. This facility administers both an open reference and a static simulator section of the written exam. Both sections of the exams met the guidance of the examination standards.

However, one problem was noted in overlap between exam weeks. The facility had administered an identical written and operating exam (package "A") to three different operating crews during different exam weeks, exam package "C" had been administered to two different operating crews on different weeks and was scheduled to be given to a third operating crew, exam package "B" had been administered to three different staff crews on different weeks, exam package "D" had been administered to two different staff crews on different weeks and was scheduled to be given to a third staff crew. Exam package "E" was scheduled to be given to only one staff crew.

10 CFR 55.49 states, "The integrity of a test or examination is considered compromised if any activity, regardless of intent, affected, or, but for detection, would have affected the equitable and consistent administration of the test or examination." The inspectors expressed concern that the 100 percent overlap between exams presented a possibility to compromise the integrity of the examination.

The facility representatives stated that they understood the concern and that they would revise the exam content for those exams not yet administered. The training department conducted an assessment of exam performance to see if the grades in successive weeks when exam material was repeated was significantly improved. Based on this assessment, there was no evidence of actual exam compromise indicated. During interviews, operators stated that they had no knowledge of actual exam compromise. However, the operators also indicated they did not feel any restrictions on discussing the contents of their exams with other operators on other crews that had not yet been tested. Therefore, the inspectors concluded that a potential for exam compromise existed, although no actual exam compromise was detected. The process for administering the annual/biannual requalification exams has a potential for exam compromise, but no evidence existed which indicated that the facility licensee's activities, except for detection, would result in a compromise. This potential examination security issue is documented in the corrective action program as Condition Report (CR) 993236. **(IFI 05000334/99-10-01)**

The inspectors also reviewed and observed the four scenarios being administered during the week of the inspection and reviewed one other set that had been administered previously. The NRC resident inspectors observed the operating crew's two scenarios for comparison with normal crew behavior during routine plant operations. Two different scenarios were used to test the operating crew and the staff crew. During one of the scenarios administered as part of the annual requalification exam, the inspectors noted that a reactor operator was not wearing his corrective lenses as required by the condition on his NRC license. As a result, the operator made a mistake in reporting the equipment identification number for a failed instrument. The operator was corrected twice by the crew's shift technical advisor before he finally put his glasses on and correctly read the nameplate data for the instrument. This problem was documented in the licensee's corrective action program as CR 993234.

The inspectors noted in several instances immediately following simulator scenarios that operators were not cautioned to refrain from discussing the scenario among themselves until after the evaluators had an opportunity to ask questions. The operators were allowed to talk among themselves before and during questioning by the evaluator. This could potentially bias the answers provided by the operators during questioning for evaluation purposes. The inspectors also noted that one evaluator appeared to be in the teaching mode, and questions were open for the crew to answer. The inspectors concluded that good evaluation techniques to elicit unbiased responses to questions, were not consistently being used by licensee evaluators.

The inspectors noted an additional example of potential evaluation bias, in that one of the evaluators attended the crew self-critique following the administration of the simulator scenario portion of the annual operating exam. The crew had an opportunity to discuss their performance among themselves prior to this meeting; and therefore, had been given an opportunity to identify areas of weakness and strength. The evaluator was observed taking notes during this debrief. The inspectors were concerned that the evaluator's independent and objective assessment would be biased by attending this meeting prior to his independent assessment, grading, and documentation of the crew's performance. The requalification program training supervisor indicated this was not a normal practice and had provided some of the evaluators written instructions that cautioned against attending this meeting, but apparently the instructions had not been provided to this one evaluator. The potential for bias on evaluation techniques is documented in the corrective action program as CR 993233.

The inspectors further noted that licensed operators do not receive a formal individual operator evaluation during performance of simulator scenario exercises. They are evaluated as a part of their crew. The inspectors questioned how the instructors evaluated each licensed operator and senior operator to determine areas where retraining was needed to upgrade their knowledge as required by 10 CFR 55.59 (c)(4)(i). The licensee noted that their systematic approach to training (SAT) program ties individual evaluations using the grading competency form to weaknesses associated with critical tasks. The inspectors noted that there is evidence that the facility SAT based requalification program does attempt to identify and document individual weaknesses at least to the extent that these weaknesses affect crew performance as part of the crew evaluation. However, no formal evaluation was completed that documented individual competencies for each individual operator. Some

individuals have been failed for incorrect emergency plan classifications (basically a one or two person decision with no crew involvement), and one individual in 1997 was failed for a performance issue; however, all other failures were crew failures. This practice of conducting only crew evaluations is documented in the corrective action program as CR 993235, and will be evaluated by the licensee to determine the appropriate corrective actions.

The inspectors reviewed the 10 job performance measures (JPMs) administered during the inspection week as well as one other set of 5 JPMs and observed exam administration for eight individuals. The JPMs and sets met the guidance of the examination standards and no discrepancies were noted during JPM exam administration.

Training Feedback Program and Remedial Training

The training feedback process was found to be effective in capturing operator concerns and providing timely resolution. This conclusion was based upon operator interviews and a review of feedback records. Feedback and the problem resolution is posted on a bulletin board on the second floor of the training building. The feedback forms reviewed did not request a personal response.

The inspectors also reviewed remedial training prescribed for four individuals who had received failing grades on Module quizzes or on the annual examination. The remediation of one individual who was involved in a 1998 plant trip was also reviewed. The remedial training plans were developed by the training staff to meet each individual's identified weaknesses, with approval from operations management. The inspectors noted that the individuals' immediate supervisor, the nuclear shift supervisor or the assistant nuclear shift supervisor, were not involved with the development of the remedial training plan, which could result in oversight of other weak areas in the remediation process. Licensee management stated that they would evaluate additional involvement of the immediate supervisor in the remediation training process.

Conformance with License Medical and Training Requirements

A review of records and discussions with licensee personnel found that the licensee was meeting the requirements of 10 CFR 55.21 for medical examinations of operators, and 10 CFR 55.59 for operator participation in the LORT program. However, the inspectors identified two record keeping deficiencies for individual operators. Two attendance records of LORT module training could not be located; one for a single operator's attendance for Module 5 in 1998, and the second for a single operator's attendance for module 1 in 1999. The record deficiencies were documented in the corrective action program as CR 993237. In both cases, the licensee feels confident that the training was completed and has established corrective actions to confirm this and replicate the required documentation. The licensee was meeting the regulatory requirements associated with licensed operator medical examinations and training with the exception of minor record deficiencies noted above.

c. Conclusions

The Licensed Operator Requalification Training program content was balanced and met the needs of the operators. The facility presented appropriate, well prepared training both in the classroom and simulator. The feedback process, as part of the systems approach to training program, was effective. Selected industry events, which were applicable to Beaver Valley's operators, were properly incorporated into the training.

Written and operating exam content met regulatory requirements; however, two deficiencies were noted. The process for administering the annual/biannual requalification exams has a potential for exam security compromise (Condition Report 993236). Also, licensed operators were evaluated as a crew during simulator scenario exercises, rather than receiving formal individual evaluations, unless they fail to perform a critical task (Condition Report 993235). In addition, the inspectors noted that evaluation techniques had the potential for bias.

In general, the licensee met the regulatory requirements associated with licensed operator medical examinations and training. Two minor record keeping deficiencies were identified for individual operators (Condition Report 993237).

O8 Miscellaneous Operations Issues

O8.1 Employee Concern Resolution Program

a. Inspection Scope (71707)

The employee concern resolution program was reviewed in order to verify that potential employee safety issues had proper processes established for issue identification and resolution. A sample of both open and completed concerns was reviewed for resolution adequacy.

b. Observations and Findings

The employee concern resolution program is directed by a designated employee also known as "the ombudsman" who reports to the site Senior Vice President. Information on the employee concern program (ECP), including details on initiating a concern, is available at eleven placard stations located around the site. Employees can identify their concerns by completing a written form available from one of the placard stations, by leaving a recorded message on the employee concern hotline or by visiting the ombudsman's office.

The inspectors reviewed twelve completed and twelve open employee concerns. The twelve completed employee concerns reviewed were properly documented and well controlled. Completed resolutions were properly detailed and maintained on file for review. Written responses were mailed to the concerned individuals to provide closure to their concerns.

The inspectors noticed, that in early December, several new employee concerns were entered into the condition report (CR) program. The inspectors were concerned that this could be viewed as a possible reduction in the level of confidentiality. Employee concerns initiated through the ECP had not been previously entered into the CR

program. The CR program database has open access, whereas issues in the ECP remain under close security of the ombudsman. The ombudsman indicated that considerable effort was taken to ensure confidentiality before a concern was entered in the CR program. However, he did not have any specific guidance to follow. The decision to enter employee concerns into the CR program had been left to the site Senior Vice President. The inspectors discussed the confidentiality concern with the site Senior Vice President who indicated that some type of guidance would aid the ombudsman. He also identified a deficiency that no review had been performed of the employee concern condition reports before they were entered into the CR program. He indicated that these program improvements would be performed.

c. Conclusions

The employee concern program provided an effective means for concerned individuals to raise safety issues and receive feedback concerning how their issues were resolved.

O8.2 Year 2000 Rollover Monitoring

a. Inspection Scope (37551, 71707)

The inspectors reviewed station procedures and monitored plant activities to determine whether station personnel properly prepared for and evaluated plant response to the Year 2000 (Y2K) computer rollover.

b. Observations and Findings

Station personnel developed procedure 1/2TOP-99-05, “Integrated Y2K Contingency Plan,” Rev. 0, to support Y2K rollover assessment. Although engineers had previously verified plant equipment would not be adversely affected, the procedure was developed to identify a time line for monitoring key plant operating characteristics and to provide various contingency action plans. The inspectors determined that the procedure was comprehensive and appropriately incorporated industry operating experience. Additionally, operations personnel conducted simulator training for power distribution grid disturbance events prior to the Y2K rollover.

The inspectors monitored control room and Technical Support Center (TSC) activities for a seven hour period during the Y2K rollover. The TSC was partially staffed with 17 people to provide additional support if needed. The Design Engineering manager monitored the Y2K Early Warning System (YEWS) which was an internet based system that power plants worldwide used to report Y2K problems. No major problems were reported on YEWS. The minor Y2K problems reported via YEWs were promptly evaluated for applicability to Beaver Valley Power Station and communicated as necessary to the operations staff. Operations management and Quality Services Unit personnel provided good oversight in the control room. The inspectors noted that control room personnel were familiar with 1/2TOP-99-05 and alertly monitored plant performance during the Y2K rollover. No significant Y2K related problems occurred.

c. Conclusions

Station personnel and equipment systems were properly prepared for the Year 2000 computer rollover. Monitoring and contingency plans were comprehensive and were effectively implemented. Industry experience was monitored during the Y2K rollover and promptly communicated to the control room staff.

II. Maintenance

M1 Conduct of Maintenance

M1.1 Routine Maintenance Observations

a. Inspection Scope (62707)

The inspectors observed selected maintenance activities on important systems and components. The maintenance work orders (WOs) observed and reviewed are listed below.

a.	WO 99-224272-000	Unit 2 Service Water Pump "C" Discharge Check Valve Inspection
b.	WO 99-224049-000	Unit 2 Service Water Pump "C" Expansion Joint Replacement

b. Observations and Findings

The activities observed and reviewed were performed safely and in accordance with proper procedures. Inspectors noted that an appropriate level of supervisory attention was given to the work depending on its priority and difficulty.

c. Conclusion

Two maintenance activities were conducted safely and in accordance with procedures.

M1.2 Routine Surveillance Observations (61726)

The inspectors observed selected surveillance tests. Operational surveillance tests (OSTs), maintenance surveillance procedures (MSPs), and an operating manual (OM) activity which were reviewed and observed by the inspectors are listed below.

•	1OST-24.4	Steam Turbine Driven Auxiliary Feed Pump Test [1FW-P-2], Rev. 13
•	1MSP-36.05A-E	1A Reactor Coolant Pump 4KV Bus Undervoltage Relay 27-VA100 28 Day Functional Test, Rev. 16
•	1OST-36.2	Diesel Generator No. 2 Monthly Test, Rev. 24
•	1OST-30.3	Reactor Plant River Water Pump 1B Test, Rev. 20
•	2OM-30.4.G	Standby Service Water System Startup, Rev. 6

The surveillance testing was performed safely and in accordance with proper procedures.

M2 Maintenance and Material Condition of Facilities and Equipment

M2.1 Deferred Preventive Maintenance

a. Inspection Scope (62707)

As a result of the review of the extended out of service time of the Unit 2 "C" service water pump due to the failure of its associated vacuum break valve, 2SWS-488, the licensee identified that preventive maintenance (PM) was not always being performed as scheduled nor was it being deferred as required by procedure. A multi-discipline analysis team (MDAT) was formed to identify the root cause and provide corrective actions. Noting that a lack of preventive maintenance has resulted in plant trips and forced outages (see NRC IR Nos. 50-334(412)/99-07 and 99–08), the inspectors reviewed: 1) the PM backlog; 2) the PM deferral process and; 3) the effectiveness of past corrective actions. In addition, the inspectors observed the MDAT for effectiveness of problem identification and corrective actions.

b. Observations and Findings

During discussions with the system engineer concerning the root cause of the over-pressurization of the "C" service water pump discharge expansion joint and pressure indicator, it was identified that the annual preventive maintenance to clean and inspect the vacuum break check valve, 2SWS-488, had not been performed. The failure of this valve to open resulted in over-pressurization of the discharge piping during surveillance testing on November 9 (See Section M.2.2).

On December 20, the Nuclear Safety Review Board (NSRB) reviewed and approved the submittal of LER 50-412/99-11 for the resulting inoperable service water pump. The inspectors noticed that the LER characterized the PM as being performed annually. Following completion of the meeting, the inspectors expressed a concern that the LER statement was misleading since the PM had not been completed within the last year. The inspectors determined that NSRB had not probed deeply enough to identify that the condition of the PM was overdue, nor the relationship of the overdue PM to the over-pressurized expansion joint. The LER was corrected the following day, and CR 993571 was entered into the licensee's corrective action program.

A review of the overdue PMs by the on-line scheduling supervisor identified that 17 PMs exceeded the site administrative limit date (greater than 25 percent beyond the due date). One of the items was a safety-related damper which was then placed in its safe condition (closed), pending successful completion of the PM. This was documented in CR 993605 and the PM was performed two days later. These items which were left in service beyond the PM limit date were reviewed by the inspectors and determined not to be safety significant. However, senior site management appropriately determined that additional problems were evident with the PM program and initiated CR 993581 to investigate.

An MDAT was assembled to identify the apparent causes and formulate corrective actions. The team began by identifying approximately 300 overdue PMs. Of these, 88 were beyond their limit date. These items were screened for operability and evaluated by the system engineers in accordance with NPDAP 8.31. No immediate operability problems were identified. Several of the overdue PM tasks were on safety related items. The inspectors reviewed a sample of these items and concurred with the MDAT operability assessments. The inspectors determined that the river water and service water vacuum break check valve PMs (see Sections M2.1 and M2.2) would not have been deferred past their limit date had this type of detailed evaluation been performed. The MDAT identified that the items had not been properly evaluated and deferred in accordance with the site procedure, Nuclear Power Division Administrative Manual (NPDAP) 8.31, “Preventive Maintenance Program,” Rev. 5. Failure to follow NPDAP 8.31 resulted in numerous PM’s exceeding their limit date. The failure to perform preventive maintenance on safety related equipment, as required by station procedures, is a violation of Technical Specification (TS) 6.8.1 for both units. This severity IV violation is being treated as a Non-Cited Violation, consistent with Section VII.B.1.a of the NRC enforcement policy, November 9, 1999 (64FR61142) **(NCV 05000334(412)/99-10-02).** This violation is in the licensee’s corrective action program as CR 993581.

The MDAT determined that various station personnel did not understand and therefore did not use NPDAP 8.31 guidance for PM deferrals. A lack of understanding of the PM deferral process and expectations for timely PM completion, as well as the complexity of the electronic PM program were also identified as contributors to the PM deficiencies. In addition, the post-work PM closure process was not being performed in a timely manner. Condition reports 993672 and 993674 were initiated to document these inadequacies. The inspectors observed the MDAT and determined that the assessment for the PM program deficiencies was detailed and critical.

The inspectors determined that the performance indicator used to track overdue PM’s had almost doubled in magnitude (76 to 131) from September to December (prior to the formation of the MDAT). The Work Week Management Manager indicated that the indicator was not well understood nor actively monitored. Additionally, the color coded performance indicator had been consistently yellow without management awareness or action. The inspectors determined that an opportunity to identify the increase in overdue PM’s had been missed.

Interim corrective actions developed by the MDAT were thorough and included: 1) revising NPDAP 8.31; 2) issuing a site communication to be reviewed and signed by

each site employee that reinforced and clarified the expectations for PM program performance; 3) reviewing expectations with the PM surveillance coordinators; and 4) instituting a daily review of any PM's approaching an overdue date. The site expectations for PM program performance were well delineated in the site wide memo and subsequently incorporated into the PM program procedure. Authorization for PM's to go overdue had to be approved in advance by the implementing group's director. Additionally, PM's that would exceed a limit date had to have the site Senior Vice President's authorization.

The inspectors reviewed previous corrective actions associated with inadequate PM program performance. CR 991372, which was initiated on June 3, 1999, concluded that many of the plant's equipment problems were due to a lack of adequate preventive maintenance. The maintenance deferral process was not rigorous and maintenance was being deferred without consideration for long term health of the equipment. Ten corrective actions were identified in August, 1999. However, implementation of the corrective actions was not scheduled for completion until June, 2000. These corrective actions would have improved the risk assessment process for deferring preventive maintenance and, if fully implemented, could have prevented the November 9, 1999, service water hammer event. The inspectors determined that the corrective actions were not timely and exacerbated the PM program deficiencies.

c. Conclusions

Preventive maintenance (PM) tasks were deferred beyond their periodicities, without the proper evaluations required by the PM program procedure. Failure to perform PMs on safety related equipment is a violation of Technical Specification (TS) 6.8.1 for both units. This severity IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC enforcement policy (Condition Report 993581).

Previous corrective actions to improve the preventive maintenance (PM) program were not performed in a timely fashion and exacerbated the PM program deficiencies. In addition, performance indicators were not used effectively to identify a degrading trend in the scheduled performance of PM tasks.

The Multi-Disciplined Assessment Team assessment of PM program deficiencies was detailed and critical. Interim corrective actions were comprehensive.

M2.2 Inoperable Unit 2 Service Water Header Due to Degraded Expansion Joint

a. Inspection Scope (37551, 62707, 71707)

On November 21, 1999, a plant operator identified that the discharge expansion joint (2SWS-EJM222C) for service water (SW) pump 2SWS-P21C was deformed, possibly the result of a water hammer event in the system. 2SWS-P21C was in service, supplying the "B" SW train. The inspectors conducted interviews, reviewed records, and observed maintenance to evaluate response to this event.

b. Observations and Findings

Operator Response

Upon identifying the deformed expansion joint, operators promptly declared 2SWS-P21C and the "B" SW train inoperable. Additionally, 2SWS-P21B had been out of service since November 15 for unrelated corrective maintenance. This resulted in only the "A" SW train remaining operable. Technical specification (TS) 3.7.4.1 requires at least two service water subsystems supplying safety related equipment be operable. If two SW subsystems are not restored within 72 hours, the associated TS limiting condition of operation (LCO) requires the plant to be in Hot Standby within the following 6 hours. Operators correctly applied the associated TS LCO and exited the TS LCO on November 22, following successful post maintenance testing on 2SWS-P21B.

Event Assessment

Engineers determined that a pressure pulse (or water hammer event) occurred in the SW piping from 2SWS-P21C to its discharge valve during periodic surveillance testing on November 9. Service water system design includes a vacuum break line connected to the pump discharge header, which causes water from the pump suction and discharge headers to drain back to the intake bay when the pump is secured. The surveillance test, performed on November 9, required 2SWS-P21C be stopped and restarted within a short period (actual time interval was 58 minutes). Initial engineering assessments concluded that internal corrosion buildup caused vacuum break check valve 2SWS-488 to stick shut and a water hammer event resulted upon restarting 2SWS-P21C.

SWS-P21C had been relied on as one of two required operable SW pumps during the period November 15-21. Engineers subsequently concluded that since November 9, the degraded SW expansion joint may not have been capable of withstanding a pump restart, whether it was a manual start or from emergency diesel generator (EDG) automatic start sequencing. Therefore, a design transient, such as a loss of off-site power event, could cause the "B" SW train to fail. A single active failure during this transient, such as the 2-1 EDG failing to start could then cause the "A" SW train to fail. This represented a condition outside of station design, for which the SW system would

not be able to perform its intended safety function. The event was properly reported to the NRC in accordance with 10 CFR 50.72. Initial engineering assessments, which credited availability of the non-safety related alternate SW system, determined that this event had low to moderate safety significance. The inspectors questioned whether the worst case (magnitude and duration) potential water hammer event had been considered. Engineers said they would address this concern in a more comprehensive risk assessment that was in progress at the close of the inspection period.

Station records indicated that the Unit 1 river water (RW) and Unit 2 SW pump vacuum break check valves experienced repetitive leakage problems since 1991. The leakage was primarily caused by internal corrosion which restricted valve disc motion and inhibited proper valve seating. As a corrective action, an annual preventive maintenance (PM) task to disassemble, clean, and inspect the valves was established in late 1992. Engineers determined that the PM was not performed on 2SWS-488 for over 16 months prior to the water hammer event. Preliminary evaluation identified the following three principle causes for the stuck check valve: (1) Preventive maintenance to address a known degraded condition was deferred without justification; (2) The effectiveness of the annual PM had not been properly evaluated; and (3) Permanent design changes to install upgraded RW and SW vacuum break check valves were untimely. The inspectors determined that this preliminary causal assessment was accurate, but not inclusive (see Inspectors' Assessment section below). A formal root cause analysis to determine the effect of deferring the PM performance on the operability of 2SWS-488 was in progress at the conclusion of this inspection period.

Actions Taken

Immediate corrective actions for this event included multiple RW and SW system inspections for signs of water hammer events or related material degradation. The deformed expansion joint was replaced. The three SW pump vacuum break check valves were replaced with an upgraded design which is less susceptible to internal corrosion and mechanical binding. The inspectors concluded that the immediate corrective actions for this event were appropriate. However, the inspectors expressed concern that the Unit 1 RW pump vacuum break check valves could similarly fail resulting in a water hammer event. The licensee was slow to understand the potential significance of this event and slow to implement some corrective actions. Operations night orders to ensure operators verified proper vacuum break check valve operation upon securing a RW/SW pump were not placed in effect until late December. Associated procedure changes were not initiated until January 2000. The PMs for the Unit 1 RW vacuum break check valves were beyond their due dates, the PM periodicity has not been reevaluated to address repetitive leakage problems, and the design change to upgrade these valves is not scheduled for implementation until May 2000. The inspectors determined that the Operations night order was an adequate compensatory measure, pending completion of the PMs.

Inspectors' Assessment

The inspectors identified several additional concerns (listed below) and discussed them with various station personnel. Following these discussions, station management established a multi-discipline analysis team (MDAT) to investigate the event in further detail.

1. Although corrosion was a known problem, from 1991 until November 1999, station personnel did not understand the potential safety significance of the degraded vacuum break check valve performance. The safety significance for the valves' failure to close was inadequately addressed through operator work arounds. The safety significance for valves' failure to open was not considered.

2. Station personnel missed earlier opportunities to identify the affects of the water hammer, which would have reduced the risk significance of this event. On November 11, an operator identified that the 2SWS-P21C discharge pressure gage was damaged (indicator needle bent 90 degrees), but the operator and the work control center senior reactor operator did not recognize or further evaluate this as an indication of a water hammer event. Technicians replaced the failed instrument, without sufficiently questioning its cause.

3. At least five operations procedures fail to verify proper RW/SW vacuum break check valve performance during equipment operation which can result in a water hammer event. Additionally, the basis for acceptable check valve leakage into the intake structure cubicle during pump operation was inadequate.

4. Initial risk assessments did not consider the largest potential water hammer event. The magnitude of the water hammer would vary with the time interval between the pump stop and start.

5. Station personnel didn't communicate pertinent information (e.g. overdue PMs) to the NSRB. As a result, causal assessment and proposed corrective actions were incomplete, and the LER would have been misleading if the inspector didn't raise this concern.

6. The extent of condition review done for this event under CR 993270 didn't address generic implications such as PM program deficiencies.

The inspectors subsequently determined that only one train of SW was operable from at least November 15 at 4:28 a.m. until November 22 at 12:22 a.m. This period exceeded the 72 hour LCO period permitted by TS 3.7.4.1.

10 CFR 50, Appendix B, Criterion XVI "Corrective Action," requires in part that conditions adverse to quality be promptly identified and corrected. Actions to resolve degraded RW/SW vacuum break check valves from 1991 to November 1999 were inadequate in that conditions adverse to quality were not promptly identified and corrected. Multiple opportunities to identify and correct the condition existed, including evaluation of the damaged 2SWS-P21C discharge pressure instrument found on November 11, 1999. Failure to understand the potential safety consequence of this known degraded condition and take timely corrective action appeared to be a violation of

10 CFR 50, Appendix B, Criterion XVI. The licensee's root cause evaluation and safety significance determination were in progress at the conclusion of this inspection period. Additional NRC inspection, as well as assessment of licensee investigations and corrective actions are necessary to determine the safety significance of this event. **(EEI 05000334(412)/99-10-03)**.

c. Conclusions

Inadequate corrective actions for a longstanding degraded material condition resulted in a water hammer event on November 9, 1999, that deformed an expansion joint and created an adverse condition which challenged the operability of service water pump 2SWS-P21C. Plant personnel missed opportunities to identify and take appropriate actions in response to this condition. Prior to identification of the deformed expansion joint on November 21, 1999, operators removed a second service water pump from service for planned maintenance, thereby placing Unit 2 outside of its design basis. Performance weaknesses included poor understanding of the potential safety significance of the degraded material condition, preventive maintenance deficiencies, untimely assessment and design change implementation, and poor communications during the event investigation.

Untimely identification of a water hammer event permitted an unanalyzed Unit 2 plant configuration (two inoperable service water pumps) to exist for several days. Neither the outside tour operator, nor the work control center senior reactor operator recognized that a damaged service water pump discharge pressure gage may be an indicator of a water hammer event.

M2.3 Extended Out of Service Time for the Supplementary Leak Collection and Release System

a. Inspection Scope (37551, 62707)

The inspectors reviewed maintenance activities associated with the supplementary leak collection and release system (SLCRS) through system walkdowns and interviews with maintenance and system engineering personnel. The inspectors conducted additional reviews associated with high differential pressure discovered in the primary auxiliary building and the cable vault building.

b. Observations and Findings

On December 27, the "A" train of SLCRS was removed from service for various scheduled PMs. The original schedule projected equipment return to service approximately 41 hours later. Additional emergent activities were added to the work scope for overdue PMs on fire dampers. The inspectors identified a dislodged moisture separator box and prefilter during walkdowns of the system. The moisture separator box was a known deficiency but was not sufficiently planned to be worked during the SLCRS outage. Previous system engineering reviews determined that the pre-filters were not required for operability but were needed to extend the life of the high efficiency particulate air filter. The two deficiencies were added to the work scope and completed. Additional problems were encountered in the recovery and testing of the system due to

the unusual lineup of the system. Overall, the outage of SLCRS was 109 hours (68 hours greater than planned). The cause for the additional out-of-service time was poor planning. The emergent PMs and emergent work orders, identified during the inspectors' walkdowns, could have been identified earlier. Additionally planners could have evaluated the unusual SLCRS lineup, used during system recovery, and thereby avoided procedural performance difficulties which further delayed system restoration. The safety significance of the extended time was reduced due to the early recovery of the "A" SLCRS fan prior to full restoration of the system.

During walkdowns, the inspectors noted high differential pressure across several fire doors. The SLCRS lineup was in the design basis accident lineup with both fans operating and other non-essential loads isolated. Industrial safety engineers measured the force required to open one of the doors at greater than 100 pounds-force. This exceeded their administrative limit of 50 pounds-force. The inspectors did not identify any NRC requirements that were violated. Condition report 000071 was appropriately generated to evaluate the effect of the high differential pressure on the doors, impact on any design basis assumptions, and possible access problems for operation personnel during emergencies. The immediate operability impacts were minimal based on previous ability of operations personnel to access through the doors during the design basis accident lineups.

c. Conclusions

The out-of-service time for the supplementary leak collection and release system (primary auxiliary building ventilation) was extended due to poor planning and poor recognition of potential emergent work activities. Additional issues associated with high differential pressure across fire doors were appropriately captured in the condition report program.

M7 Quality Assurance in Maintenance Activities

M7.1 Quality Services Unit Audits and Maintenance Self Assessments

a. Inspection Scope (62707)

The inspectors reviewed self assessments and quality services unit (QSU) audits of the Maintenance department to evaluate the effectiveness of the self assessment and audit programs. In 1999, the following maintenance self assessments and audits were completed.

- 1999 QSU Audit of Beaver Valley Power Station (BVPS) Maintenance
- Self Assessment of the Initiation and Procurement of Spare Parts
- Work Practices Self Assessment
- Self Assessment of the Troubleshooting Program
- Fix-it-now Team Self Assessment

b. Observations and Findings

The QSU audit of maintenance was critical and insightful. Specific deficiencies were identified and processed through the condition report program. The inspectors noted that two concerns (PM program deficiencies and lack of site ownership of plant maintenance) identified in the audit were not captured in condition reports. The PM program deficiencies identified were not entered into the condition report program due to an existing condition report on the same subject. The corrective actions to the existing condition report were slow to resolve the PM program deficiencies. The inspectors concluded that QSU personnel had opportunities to provide needed oversight and input towards resolving the PM deficiencies, but failed to ensure prompt corrective actions. Additional discussion on PM deficiencies was described in Sections M2.1 and M2.2. The second weakness, lack of site ownership of plant maintenance, was discussed at the QSU exit and at Offsite Review Committee meetings; however, no specific corrective actions were documented for what was described in the audit report as the "most significant concern."

The maintenance self assessments were critical with well defined scope and specific areas of review. The weaknesses observed were appropriately captured in the condition report program. The QSU oversight and review of the self assessments provided meaningful feedback to the self assessment teams. Generally the corrective actions were scheduled in a timely manner; however, the self assessment on initiation and procurement of spare parts had condition reports issued April 19 that have not been evaluated. The original due date was extended from July 19 to November 15. No extensions have been requested since then. The configuration management manager informed the inspectors that the CRs on weaknesses in the areas of control of the technical information on parts and the lack of a clearly defined owner for the control of parts have not been investigated. A recent QSU audit identified 56 condition reports where incorrect or defective parts were discovered and in some instances adversely impacted maintenance activities. Additional parts issues were identified associated with the service water/river water vacuum break check valve upgrades (see Section M2.2). The lack of a timely follow-up of the deficient conditions identified in the self assessment was a deficiency in condition report program implementation.

c. Conclusions

The 1999 Maintenance department self assessments and Quality Services Unit maintenance audit were critical and provided good insight for improvement. Corrective actions were scheduled and completed in a timely manner.

Nuclear and procurement engineers were slow to respond to self assessment findings regarding control of parts. The lack of a timely response contributed to additional parts related problems and was a deficiency in condition report program implementation. Quality Services Unit personnel did not provide effective oversight of previously identified preventive maintenance program deficiencies.

III. Engineering

E1 Conduct of Engineering

E1.1 Response to Generic Letter 98-02

a. Inspection Scope (Temporary Instruction 2515/142)

The inspectors reviewed engineering's evaluation of Generic Letter (GL) 98-02, "Loss of Reactor Coolant Inventory and Associated Loss of Emergency Mitigation Functions While in a Shutdown Condition."

b. Findings and Observations

By letter dated November 5, 1998, the licensee informed the NRC that they completed an assessment of the September 17, 1994, Wolf Creek drain down event and determined that neither BVPS Unit 1 nor BVPS Unit 2 was susceptible to that event. The inspectors reviewed the assessment and conclusions to verify that emergency core cooling systems were not susceptible to a failure similar to that of the Wolf Creek event. The inspectors noted that the BVPS Unit 1 and Unit 2 residual heat removal (RHR) systems: 1) are not emergency core cooling systems; 2) do not take a suction from the refueling water storage tank; and 3) function only as a shutdown heat removal system (i.e., not emergency core cooling). These characteristics were relevant design and configuration factors in the Wolf Creek event. Notwithstanding the above design differences, engineers completed a detailed evaluation of the RHR and emergency core cooling systems to identify whether a similar configuration could exist at BVPS. None were identified. The inspectors independently evaluated system design and configuration, and verified the engineering evaluation was accurate and acceptable. No further action was required.

c. Conclusions

Engineers completed a detailed and accurate evaluation in response to Generic Letter 98-02, "Loss of Reactor Coolant Inventory and Associated Loss of Emergency Mitigation Functions While in a Shutdown Condition."

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on January 13, 2000. The licensee acknowledged the findings presented.

The licensee did not indicate that any of the information presented at the exit meeting was proprietary.

X2 Management Meeting Summary

On December 3, 1999, the Beaver Valley Power Station Units 1 and 2 (BVPS) assets and operating licenses were transferred from Duquesne Light Company to FirstEnergy Corporation. Conforming license amendments were issued as follow-up to the Orders issued on September 30, 1999, pursuant to 10 CFR 50.80, approving the associated license transfers. Highlights of the license transfers included: (1) Duquesne Light Company's interests in BVPS have been transferred to Pennsylvania Power. As a result, FirstEnergy subsidiaries now own

100 percent of BVPS; and (2) Operating authority of BVPS has been transferred from Duquesne Light Company to FirstEnergy Nuclear Operating Company.

The following management assignments became effective upon asset transfer: Mr. Lew Myers, Senior Vice President; Kevin Ostrowski, Plant General Manager; Mr. Fredrick von Ahn, Director, Plant Engineering; Mr. Robert Donnellon, Director, Projects and Scheduling; Mr. Randy Fast, Director, Plant Maintenance; and, Mr. Marc Pearson, Director, Plant Services. All five directors report directly to the Senior Vice President.

A public meeting for the NRC to discuss Beaver Valley performance as documented in the Mid-Cycle Plant Performance Review of Beaver Valley Power Station dated September 30, 1999, was held on December 15, 1999, at 1 p.m., in the Emergency Response Facility, Conference Room A, of the Beaver Valley Power Station facility. Nuclear Regulatory Commission attendees were Mr. H. Miller, Regional Administrator and other NRC staff. Licensee attendees were Mr. L. Myers, Senior Vice President, FENOC, Mr. H. P. Burg, President and Chief Executive Officer, FirstEnergy, and other members of the FirstEnergy staff.

INSPECTION PROCEDURES USED

IP 37551:	Onsite Engineering
IP 61726:	Surveillance Observation
IP 62707:	Maintenance Observation
IP 71001:	Licensed Operator Requalification Training Program Evaluation
IP 71707:	Plant Operations
IP 2515/142:	Loss of Reactor Coolant Inventory and Associated Loss of Emergency Mitigation Functions While in a Shutdown Condition

ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000334/99-10-01	IFI	Potential for Licensed Operator Requalification Exam Security Compromise (Section O5.1)
05000334(412)/99-10-03	EEI	Inadequate Corrective Actions for Degraded River Water/Service Water Vacuum Check Valves (Section M2.2)

Opened/Closed

05000334(412)/99-10-02	NCV	Deferred Preventive Maintenance (Section M2.1)

Closed

NRC Temporary Instruction 2515/142	Loss of Coolant Inventory and Associated Loss of Emergency Mitigation Functions While in a Shutdown Condition (Section E1.1)

LIST OF ACRONYMS USED

BVPS	Beaver Valley Power Station
CFR	Code of Federal Regulations
CR	Condition Report
EDG	Emergency Diesel Generator
ECP	Employee Concern Program
EEI	Escalated Enforcement Issue
FENOC	FirstEnergy Nuclear Operating Company
GL	Generic Letter
IFI	Inspection Follow-up Item
IP	Inspection Procedure
JPM	Job Performance Measure
LCO	Limiting Condition of Operation
LER	Licensee Event Report
LORT	Licensed Operator Requalification Training
MDAT	Multi-discipline Analysis Team
MSP	Maintenance Surveillance Procedure
NCV	Non-Cited Violation
NPDAP	Nuclear Power Division Administrative Procedure
NRC	Nuclear Regulatory Commission
NSRB	Nuclear Safety Review Board
OM	Operating Manual
OST	Operational Surveillance Test
PM	Preventive Maintenance
QSU	Quality Services Unit
RHR	Residual Heat Removal
RW	River Water
SAT	Systematic Approach to Training
SLCRS	Supplementary Leak Collection and Release System
SW	Service Water
TER	Technical Evaluation Report
TSC	Technical Support Center
URI	Unresolved Item
WO	Work Order
Y2K	Year 2000
YEWS	Y2K Early Warning System