U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos.	92-15 92-14
Docket Nos.	50-334 50-412
License Nos.	DPR-66 NPF-73
Licensee:	Duquesne Light Company One Oxford Center 301 Grant Street Pittsburgh, PA 15279
Facility:	Beaver Valley Power Station, Units 1 and 2
Location:	Shippingport, Pennsylvania
Inspection Period:	May 26 - July 1, 1992
Inspectors:	Lawrence W. Rossbach, Senior Resident Inspector Peter P. Sena, Resident Inspector

Approved by: P. C. Shedlock for 7/15/92
John Rogge, Chief Date
Reactor Projects Section No. 4B

Inspection Summary

This inspection report documents the safety inspections conducted during day and backshift hours of station activities in the following areas: plant operations; radiological controls; surveillance and maintenance; emergency preparedness; security, engineering and technical support; and safety assessment/quality verification.

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EXECUTIVE SUMMARY

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Plant Operations

The units were operated safely. A main feedwater pump tripped during a planned Unit 2 power reduction. Prompt action by the Unit 2 control room operators prevented a plant trip. The feedwater pump root-cause investigation by the licensee was thorough.

Radiological Controls

A self-identified, non-cited violation involving an unlocked and ajar high radiation area door was inspected. The licensee performed a thorough root-cause analysis and concluded no individuals received any unusual exposure as a result. No programmatic deficiencies were identified by the inspector.

Maintenance and Surveillance

The operator performing a motor driven auxiliary feed pump test displayed a proper questioning attitude and good attention to detail during the performance of the test. A self-identified, non-cited violation involving failure to perform adequate post-maintenance testing to demonstrate operability of train 'A' of the Unit 1 supplemental leak collection and release system was inspected.

The licensee was found to have a proactive and effective program for the control of Asiatic clams. Final State approval of the program was granted. Instrumentation and controls management has taken a good initiative toward reducing the number of personnel errors by implementing a self-checking training program.

Engineering and Technical Support

The licensee has concluded the cause of the river pump coupling failures to be a lack of toughness due to faulty heat treatment based on a metallurgical analysis of a second coupling. This is in contrast to the licensee's initial root-cause analysis. The licensee's documentation of their operability determinations was found to be weak.

Safety Assessment/Quality Verification

Several event reports were reviewed. The event descriptions, analysis, root-cause determinations, and corrective actions were of high quality.

The licensee's plant inspection program was reviewed. This program has been effective in identifying deficiencies and has strengthened management oversight. However, management's complete commitment toward the program was found to be lacking strength since 24% of site managers were routinely not performing their assigned inspections.

DETAILS

1.0 SUMMARY OF FACILITY ACTIVITIES

Unit 1 operated at full power throughout this period. Unit 1 is currently having a record run for the unit and has run 217 days as of the end of this inspection period.

Unit 2 operated at full power throughout this inspection period except for a planned power reduction to 30% power from June 5 to June 8 to perform maintenance on the heater drain tank pumps. An engineered safety feature actuation occurred following this power reduction due to the trip of a main feedwater pump. This event is discussed in Section 2.2.

2.0 PLANT OPERATIONS (71707)

2.1 Operational Safety Verification

Using applicable drawings and check-off lists, the inspectors independently verified safety system operability by performing control panel and field walkdowns of the following systems: recirculation spray, low head safety injection, and river water. These system were properly aligned. The inspectors observed plant operation and verified that the plant was operated safely and in accordance with licensee procedures and regulatory requirements. Regular tours were conducted of the following plant areas:

- Control Room
- Auxiliary Buildings
- Switchgear Areas
- Access Control Points
- Protected Areas
- Spent Fuel Buildings
- Diesel Generator Buildings
- Safeguard Areas
- Service Buildings
- Turbine Buildings
- Intake Structure
- Yard Areas
- Containment Penetration Areas

During the course of the inspection, discussions were conducted with operators concerning knowledge of recent changes to procedures, facility configuration, and plant conditions. The inspectors verified adherence to approved procedures for ongoing activities observed. Shift turnovers were witnessed and staffing requirements confirmed. The inspectors found that control room access was properly controlled and a professional atmosphere was maintained. Inspectors' comments or questions resulting from these reviews were resolved by licensee personnel.

Control room instruments and plant computer indications were observed for correlation between channels and for conformance with technical specification (TS) requirements. Operability of engineered safety features, other safety related systems, and onsite and offsite power sources were verified. The inspectors observed various alarm conditions and confirmed that operator response was in accordance with plant operating procedures. Compliance with TS and implementation of appropriate action statements for equipment out of service were inspected. Logs and records were reviewed to determine if entries were

accurate and identified equipment status or deficiencies. These records included operating logs, turnover sheets, system safety tags, and the jumper and lifted lead book. The inspectors also examined the condition of various fire protection, meteorological, and seismic monitoring systems.

Plant housekeeping controls were monitored, including control and storage of flammable material and other potential safety hazards. The inspectors conducted detailed walkdowns of accessible areas of both Unit 1 and Unit 2. Housekeeping at both units was good.

2.2 Auto Start of Unit 2 Auxiliary Feedwater Pumps

One June 5, a power reduction was in progress to support the repacking of the Unit 2 heater drain pumps. At 38% power, after main feedwater pump 'A' had been secured, feedwater recirculation valve FCV150B cycled open and closed several times followed by the automatic tripping of main feedwater pump 'B.' Both motor driven auxiliary feedwater pumps started automatically as designed, and all steam generator blowdown isolation valves closed automatically as designed. The operators started main feedwater pump 'A' and secured the auxiliary feedwater pumps. Steam generator blowdown was returned to service later. Prompt action by the control room operators to start main feedwater pump 'A' averted a plant trip and the plant was stabilized at 30% power. The auxiliary feedwater pumps and the steam generator blowdown isolation valves are engineered safety features (ESF). The licensee promptly reported the ESF actuation and began an investigation into the cause of the event. The licensee is preparing a licensee event report (LER) for this event.

The cause of the pump trip was not immediately apparent but was believed to be related to the recirculation valve cycling. Extensive investigations by the licensee included inspections of the pump breaker, the pump trip circuitry, and the calibration of suction pressure switches. The investigation determined that the cause of the pump trip was a latching mechanism in a relay in the main feedwater pump trip circuitry. The hydraulic transient caused by the recirculation valve reduced the feedwater suction pressure below 292 psig which deenergized a coil in the pump trip relay. Normally, the relay would be kept from tripping by the latching mechanism unless pressure dropped below 250 psig for 30 seconds. Pressure did not drop below 250 psig as shown by the lack of a low pressure alarm which was set between 275 and 290 psig. The relay latching mechanism was subsequently adjusted on pump 'B' and verified to be adjusted properly on pump 'A.' The recirculation valve was also repaired.

Since the plant systems responded properly to this event and it did not lead to any undesirable plant conditions, the inspector concluded that it was of minor safety significance. The inspector concluded that prompt action by the control room operators in returning the main feedwater pump to service prevented a plant trip and that the licensee conducted a thorough root-cause investigation.

3.0 RADIOLOGICAL CONTROLS (71707)

3.1 Radiological Controls Observations

Posting and control of radiation and high radiation areas were inspected. Radiation work permit compliance and use of personnel monitoring devices were checked. Conditions of step-off pads, disposal of protective clothing, radiation control job coverage, area monitor operability and calibration (portable and permanent), and personnel frisking were observed on a sampling basis. Licensee personnel were observed to be properly implementing their radiological protection program.

3.2 Unlocked High Radiation Area Door

On June 13, 1992, at 2:12 a.m., the licensee discovered a high radiation area door unlocked and ajar. This was the north door to the east valve trench in the primary auxiliary building (PAB). The licensee immediately searched the valve room and no individuals were found in the area. Radiation surveys verified maximum dose rates as 13 R/hr on contact and 600 mR/hr at 18 inches. High radiation areas with intensities ≥ 1000 mR/hr must remain locked in accordance with technical specification requirements and are controlled with RB1X keys.

The licensee initiated an investigation to determine the root cause of the incident. The investigation was monitored and reviewed by the inspector. The unlocked door was discovered during a routine, once per shift, radiation barrier check. The licensee reviewed radiation work permits and determined the last authorized work performed in the valve trench was a trash and laundry pickup on June 12 at 2:37 p.m. The radiation technician who provided oversight of this activity verified the door to be double locked upon exit at approximately 3:04 p.m. No documentation was available to the inspector for verification as the licensee does not require this information to be logged. The barrier door has a separate door lock and a padlock for double locking. A radiation barrier check was next performed at 5:31 p.m. The radiation technician logged the door as "locked" but could not recall if the padlock was locked on the hasp. The licensee reviewed radiation barrier key logs and determined three individuals had RB1X keys signed out after the 5:31 p.m. barrier check. However, these individuals stated that no work activities were performed in the valve trench area. The licensee reviewed operator logs and confirmed no documented activities occurred in the area. The licensee was unable to determine the specific reason for the unlocked door or the individual(s) responsible but concluded it must be attributed to personnel error. The inspector concurred with this conclusion.

The inspector reviewed the licensee's exposure investigation which bounded the period in question. A security printout indicated 18 individuals assessed the PAB between 5:00 p.m. on June 12 and 3:00 a.m. on June 13. The dosimetry readings for these individuals indicated the maximum exposure received by any individual was 5 mR. The inspector agreed with the licensee's conclusion that no individuals within the PAB received any unusual exposure while the radiation barrier was unlocked.

Technical Specification 6.12.2 requires locked doors be provided to prevent unauthorized entry into areas in which the radiation intensity is greater than 1000 mR/hr. The inspector concluded this violation of technical specifications to be an isolated event. The last occurrence of an unlocked high radiation area door was on November 8, 1989, due to a faulty door lock mechanism. No programmatic deficiencies over the control of locked high radiation areas were identified by the inspector. As corrective action, the licensee has counseled all individuals involved and has revised the shift barrier surveillance to include a physical check of the padlocks in addition to the door lock mechanism. Although the specific root cause could not be identified, the inspector considered the licensee's investigation to be thorough. This violation of technical specification requirements will not be subject to enforcement action because the licensee's efforts in identifying and correcting the violation met the criteria specified in Section VII.B of the revised Enforcement Policy, dated February 18, 1992.

4.0 MAINTENANCE AND SURVEILLANCE (61726, 62703, 71707, 92701)

4.1 Maintenance Observations

The inspectors reviewed selected maintenance activities to assure that: the activity did not violate Technical Specification Limiting Conditions for Operation and that redundant components were operable; required approvals and releases had been obtained prior to commencing work; procedures used for the task were adequate and work was within the skills of the trade; activities were accomplished by qualified personnel; radiological and fire preventive controls were adequate and implemented; QC hold points were established where required and observed; and equipment was properly tested and returned to service.

Maintenance work requests (MWR) and temporary operating procedures (TOP) reviewed included:

MWR 09512 Auxiliary Feedwater Pump Discharge Gauge Calibration

MWR 09632 Auxiliary Feedwater Pump Steam Supply Check Valve Repair

MWR 10739 Check and Replace Instrument Air Dryer Valve SOV1033B

MWR 09893 Motor Driven Auxiliary Feedwater Pump Seal Adjustment

1TOP-90-07 Asiatic Clam Chemical Treatment Program

The clam treatment activity is discussed in Section 4.5. The remaining maintenance activities were observed to be properly performed.

4.2 Surveillance Observations

The inspectors witnessed/reviewed selected surveillance tests to determine whether properly approved procedures were in use, details were adequate, test instrumentation was properly calibrated and used, technical specifications were satisfied, testing was performed by qualified personnel, and test results satisfied acceptance criteria or were properly dispositioned. The following operational surveillance tests (OST) and maintenance surveillance procedures (MSP) were reviewed:

OST 1.11.6 Emergency Core Cooling System Flow Path and Valve Position Checks

OST 2.11.1 Low Head Safety Injection Pump (2SI5?-21A) Test

OST 2.24.2 Motor Driven Auxiliary Feed Pump (2FWE-P-23A) Test

OST 2.36.1 Emergency Diesel Generator 2-1 Monthly Test

OST 2.36.7 Offsite to Onsite Power Distribution System Breaker Alignment Verification

1MSP 6.22-1 Delta T-TAVG Protection Instrument Channel III Test (T-RC432)

During the performance of OST 2.24.2, "Motor Driven Auxiliary Feed Pump Test," the operator noted inconsistencies in the surveillance procedure for the pump flow rate ASME acceptance criteria. Specifically, the acceptable range for flow rate was 101 to 109.7 gallons per minute (gpm) while the alert range was 107.7 to 110.7 gpm. The inspector discussed the overlapping acceptance criteria with the responsible engineer and was informed this was due to a transcription error. The acceptance criteria was recently revised on May 18, 1992, due to the installation of a new pump impeller and subsequent development of new baseline data. The correct alert range for pump flow rate should have been 109.7 to 110.7 gpm. The overlapping acceptance criteria was not detected by the licensee during the procedure change review process or during the previous performance of the OST on May 21, 1992. The inspector determined that the safety significance of this oversight was minor, as it resulted in a more conservative acceptance criteria and did not affect pump operability determinations. Pump flow rate was within the acceptable range during the two performances of the surveillance. The licensee has subsequently updated the procedure with the correct acceptance criteria. The inspector concluded the operator displayed a proper questioning attitude and good attention to detail during the performance of the test.

4.3 (Closed) Unresolved Item (50-334/91-19-02)

On September 12, 1991, during performance of surveillance test BVT 2.16.5, "SLCRS Safeguards Balance Test," the licensee determined that one train of the Unit 1 Supplemental Leak Collection and Release System (SLCRS) was inoperable due to less than allowable air flow through one SLCRS exhaust filter train. Surveillance test BVT 2.16.5 measures a flow

rate of 28,718 cfm through filter train 'A' with fan 'A' on and 27,519 cfm through filter train 'A' with fan 'B' on. Technical Specification 4.7.8.1 requires a flow rate of 36,000 cfm ± 10%. Adequate flows were measured through train 'B.' The licensee promptly declared train 'A' inoperable, entered the technical specification action statement, and investigated the situation.

Investigation by the licensee determined that train 'A' damper number VS-D-4-2A went open when control and indication said it was closed, and it went nearly closed when control and indication said it was open. This condition was believed to have existed since June 1991, as a result of a modification and maintenance that was performed on train 'A' damper number VS-D-4-2A. The modification, performed under work request 904339, installed doors in the damper enclosure to provide access for preventive maintenance. Corrective maintenance on the linkage between this damper and its controller was performed under maintenance work request 911084 between approximately June 23 to 26, 1991. During this corrective maintenance, it was recognized that the linkage was slipping, and an attempt was made to correct it. The post-maintenance operability test was completed using a standard damper post-maintenance test check list and operating surveillance test (OST) 1.16.1, "SLCRS Test for Exhaust through Main Filter Bank - Train 'A'." These tests did not verify correct stroking of the damper nor did they measure air flow through the filter with all dampers aligned to demonstrate operability. 10 CFR 50, Appendix B, Criterion XI and the licensee's Quality Assurance program manual require adequate post-maintenance testing to demonstrate that systems and components will perform satisfactory. This is a violation of those requirements.

In response, the licensee repaired the damper under maintenance work request 002809, performed a post-maintenance test that visually verified correct damper stroking, and on September 14, 1991, performed surveillance test BVT 1.16.1, "SLCRS Filter Bank Flow Test," which measured air flow and demonstrated operability. The licensee performed engineering evaluations to demonstrate that sufficient flow existed with the damper mispositioned so that any containment leakage into the contiguous areas would be collected by the main filter banks, and the licensee tested the charcoal absorber and verified that its removal efficiency still met technical specifications. The licensee also reviewed this event with maintenance and operations personnel. The inspector reviewed the above information and concluded that the licensee had taken good corrective actions for this event. The inspector also reviewed data from surveillance test OST 1.16.1 performed between June and September 1991 and concluded that they demonstrated that the SLCRS system was capable of producing substantial flow while in this degraded condition and was capable of performing its safety function; therefore, the safety significance was minor. This violation will not be subject to enforcement action because the licensee's efforts in identifying and correcting the violation met the criteria specified in Section VII.B of the revised Enforcement Policy dated February 18, 1992.

4.4 Instrumentation and Control (I & C) Self-Checking

The licensee recently initiated a self-checking training program for its I & C personnel in order to reduce the number of personnel errors that have resulted in licensee event reports or internal incident reports. Self-checking is a tool designed to reduce the potential for human error by helping personnel focus on the details of the task at hand. The inspector observed selected portions of the training sessions. Classes were sized so as to maximize individual involvement and attention. Every training session commenced with a discussion by the site I&C director and was indicative of management's commitment to the importance of self-checking. Workshops were held in which past incidents were discussed as to how self-checking could have averted a problem. Discussions were noted by the inspector to be open and candid. The inspector found the laboratory session to be particularly effective in stressing self-checking techniques. During the laboratory training, a maintenance work request and a surveillance procedure, with errors inserted, were performed on mockup equipment. The inspector concluded the training was of high quality and a good initiative by the I&C management to improve performance. However, the resulting impact of this training and its effect on I&C personnel performance could not be assessed at this time.

4.5 Unit 1 Clamicide Injection

Both units have previously experienced biofouling in the river water systems due to Asiatic clams (corbicula fluminea) originating from the Ohio River (ref. NRC inspection report 91-23/22). The river water system is the ultimate heat sink for Unit 1. On April 13, 1992, the Pennsylvania Department of Environmental Resources granted the licensee final approval to implement a corbicula control program. This approval follows an intensive 2-year environmental fate and effects study on the chemical additive Clam-trol (CT-1) and its detoxifying agent DT-1. The detoxification agent is a bentonite clay which assures that the ecological integrity of the Ohio River is not adversely affected.

The inspector observed the Unit 1 river water and circulating water clamicide injection on June 23, 1992, per 1TOP-90-07, "Asiatic Clam Chemical Treatment Program." The time of the year in which the clamicide injection occurs is considered vital to the successful implementation of the program. The proper time frame results in a maximum kill of the clams while they are still in a juvenile stage (7-9 mm in length). This ensures the small, dead clams are flushed through the various river water heat exchangers without inhibiting flow. If the clamicide injection occurs too late after the spring spawn, the possibility exists that adult clams could block river water flow through the heat exchangers. The inspector reviewed the 1990 and 1991 environmental studies and discussed the clamicide injection with the licensee's Director of Environmental Services. The inspector concluded the timing of the clamicide injection to be appropriate, based on past growth studies and current clam-trending information.

The factors which influence the mortality of the corbicula are clamicide concentration, contact time, and river water temperature. Accordingly, the licensee administered the clamicide dosing for 10.5 hours at a concentration of greater than 12 parts per million (ppm). The inspector reviewed the chemistry sampling results and found the dosing to be consistent with the corbicula mortality data developed during the licensee's 2-year study. Following the dosing, the licensee and the inspector monitored heat exchanger differential pressures for indications of biofouling due to dead clams. No indication of flow blockage was apparent. Sample baskets of clams were also retrieved from the cooling tower and indicated greater than a 90% clam kill.

The heat exchangers treated by the clamicide dosing included the emergency diesel generators, reactor plant component cooling water, and turbine plant component cooling water. The inspector questioned the licensee regarding the decision not to flush the recirculation spray heat exchangers (RSHX) with the mulluscicide CT-1. Previously, on October 21, 1991, the 1C RSHX was declared inoperable due to inadequate river water flow. Inspection of the RSHX internals found the heat exchanger to be partially clogged with the shells of dead Asiatic clams. The licensee suspected that the dead clams were swept into the heat exchanger during flow testing and did not originate from within the heat exchanger. The licensee's basis for the decision not to treat the RSHXs was that if the clams were in an adult stage vice juvenile, the larger, dead clams could possibly block river water flow through the heat exchangers when flushed. The RSHXs are maintained in wet layup and are normally isolated from the river water system. Also supporting the licensee's decision was that no degradation of river water flow was indicated during the quarterly flow test on May 18, 1992. The inspector considered the licensee's decision not to treat the RSHXs to be reasonable, based on the information currently available. However, the inspector expressed concern to the licensee that future flow restrictions through the RSHXs may occur without the clamicide treatment due to possible clam growth within the tube side of these heat exchangers.

The inspector concluded the licensee has an effective and proactive program for the control of Asiatic clams. The mulluscicide dosing received the appropriate level of management attention. The dosing observed by the inspector was performed consistent with the treatment information developed by the licensee's environmental study. The performance of river water flow testing, currently scheduled for August 1992, will indicate any possible future flow degradation through the RSHXs.

5.0 EMERGENCY PREPAREDNESS (71707, 82301)

The annual emergency preparedness exercise was held on June 9 and 10. It was a full participation and ingestion zone exercise. The exercise was the subject of a separate NRC inspection as reported in NRC Inspection Report 92-14/13.

6.0 SECURITY (71707)

Implementation of the Physical Security Plan was observed in various plant areas with regard to the following: Protected Area and Vital Area barriers were well maintained and not compromised; isolation zones were clear; personnel and vehicles entering and packages being delivered to the Protected Area were properly searched and access control was in accordance with approved licensee procedures; persons granted access to the site were badged to indicate whether they have unescorted access or escorted authorization; security access controls to Vital Areas were maintained and persons in Vital Areas were authorized; security posts were adequately staffed and equipped, security personnel were alert and knowledgeable regarding position requirements, and written procedures were available; and adequate illumination was maintained. Licensee personnel were observed to be properly implementing and following the Physical Security Plan.

7.0 ENGINEERING AND TECHNICAL SUPPORT (71707, 92701)

7.1 (Closed) Unresolved Item (50-334/91-22-01)

Unit 1 river water pump (WR-P-1A) experienced a coupling failure on June 20, 1991. Metallurgical analysis indicated the failure was due to embrittlement caused by faulty heat treatment. The licensee's initial position was that higher vibrations noted on the pump during inservice testing (IST) due to a degraded bearing was a contributor to the failure. This item remained unresolved as the contribution of the degraded bearing to the coupling failure was not clear and could have been indicative of a weakness in the IST program.

The licensee identified on October 17, that a coupling from the suspect heat (lot) was also installed on the 'B' river water pump. When this coupling was replaced in November, a circumferential crack was found mid-length on the coupling about two inches long. Additional metallurgical analysis confirmed the cause of the failure to be a lack of toughness due to faulty heat treatment. All river water pump couplings have been replaced with properly heat treated material qualified to assure adequate toughness. Also, the toughness or ductility of each lot of couplings is now monitored by the licensee to ensure the material has not been degraded by excessive exposure to embrittling temperatures.

The metallurgical analysis of the 'B' pump coupling supported the licensee's revised conclusion that the couplings failed inservice due to a lack of toughness. The degraded bearing in the 'A' pump did not contribute to the its coupling failure as originally postulated by the licensee's analysis, therefore the inspector concluded no weakness was exhibited in the IST program. The licensee has revised the original 10 CFR 21 report, dated November 21, 1991, to incorporate the second metallurgical failure analysis report. The possibility that couplings with similar tempering problems may have been inservice on the 'B' and 'C'

pumps in September and October 1991, represented a potential operability issue as technical specifications require two of the three pumps to be operable. Although the licensee internally discussed river water system operability on October 11, no formal justification for continued operation was prepared. Subsequently, no couplings from the suspect heat were found on the 'C' pump when disassembled in November, therefore the licensee was within its technical specifications. However, the inspector found the licensee's documentation of operability determination following the September 25, 1991, metallurgical analysis to be weak. This item is closed.

8.0 SAFETY ASSESSMENT AND QUALITY VERIFICATION (40500, 71707, 92700)

8.1 Review of Written Reports

The inspectors reviewed Licensee Event Reports (LERs) and other reports submitted to the NRC to verify that the details of the events were clearly reported, including accuracy of the description of cause and adequacy of corrective action. The inspectors determined whether further information was required from the licensee, whether generic implications were indicated, and whether the event warranted further onsite followup. The following LERs were reviewed:

Unit 2:

92-06 Inadvertent Safety Injection During Cold Shutdown Due to Inadequate Work Request Review

92-07 Engineered Safety Features Actuation - Auxiliary Feedwater Pump Start after Main Feedwater Pump Trip

These events were reviewed in NRC inspection report 92-12/13. The inspectors have no additional comments on these events.

The above LERs were reviewed with respect to the requirements of 10 CFR 50.73 and the guidance provided in NUREG 1022. Generally, the LERs were found to be of high quality with good documentation of event analyses, root cause determinations, and corrective actions.

8.2 Plant Inspection Program

The inspector conducted a review of the licensee's plant inspection program to determine if the program was being effectively implemented and whether any identified deficiencies were being corrected in a timely manner. This program requires department managers and directors to periodically walkdown portions of both units (every three weeks). The identified material deficiencies, as well as housekeeping, fire protection, and radiological concerns, are documented and entered into a formal tracking system. A program coordinator forwards the

observations to the appropriate department for corrective action. A monthly report is distributed to plant management which documents the number of open and closed deficiencies, their types, and any trends identified.

The inspector considered the program to be a good initiative which also strengthens management oversight of activities. The program has been effective in identifying deficiencies and has contributed to the improved material condition and general housekeeping of the facility. The inspector found involvement of health physics management to be particularly strong. However, it was also evident to the inspector that all site departments were not actively participating in the program. The inspector noted that about 24% of the 25 site managers/directors assigned to the inspection program were routinely not performing their assigned inspections. Although no safety concerns were identified, the inspector considered the licensee's commitment toward the inspection program and its complete implementation to be lacking strength.

9.0 EXIT MEETING (71700, 94600, 94703)

9.1 Preliminary Inspection Findings Exit

At periodic intervals during this inspection, meetings were held with senior plant management to discuss licensee activities and inspector areas of concern. Following conclusion of the report period, the resident inspector staff conducted an exit meeting on July 9, 1992, with Beaver Valley management summarizing inspection activity and findings for this period.

9.2 Attendance at Exit Meetings Conducted by Region-Based Inspectors

During this inspection period, the inspectors attended the following exit meeting:

Meeting Date	Subject	Inspection Report No.	Reporting Inspector
June 10, 1992	Emergency Preparedness	92-14/13	L. Eckert

9.3 NRC Staff Activities

Inspections were conducted on both normal and backshift hours: 26 hours of direct inspection were conducted on backshift; 6 hours were conducted on deep backshift. The times of backshift hours were adjusted weekly to assure randomness.

Richard Janati, Nuclear Engineer, Pennsylvania Department of Environmental Resources (DER) visited the site and the inspectors on May 27 and June 10, and discussed DER's involvement in the emergency preparedness exercise and accompanied the inspector in a review of the quality assurance auditor exchange program.

John Rogge, Region I Section Chief, and A. Randolph Blough, Region I Branch Chief, visited the site on June 15 for discussions with the inspectors and utility management and to tour the site.

A structural audit of safety-related structures was performed by staff from Headquarters and Region I from June 15 to 19.

Albert DeAgazio, NRR Project Manager, visited the site on June 9, and June 15 to 17 for discussions with the inspectors and utility management, to observe the emergency exercise, and accompany the structural audit.

On June 22, Y. Tsutsumi, Assistant Manager, Nuclear Inspection Division, the Japan Power Engineering and Inspection Corporation (JAPEIC) and eight other members of JAPEIC's committee on Nuclear Power Plant Safety Operation, visited the site for discussions with the utility management and the inspectors and to tour the site. The inspectors described the NRC operations phase reactor inspection program with emphasis on the resident inspector program and maintenance inspections. The inspectors also discussed other areas of interest to the JAPEIC committee, including NRC public relations activities and simulator training.