U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-334/81-03

Docket No. 50-334

License No. DPR-66 Priority -- Category C

Licensee: Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Facility Name: Beaver Valley Power Station, Unit 1

Inspection at: Shippingport, Pennsylvania

Inspection conducted: February 2-6 and 18-20, 1981

Inspectors: N. Blumberg, Reactor Inspector — 4/6/81 date signed

Approved by: D. Caphton, Chief, Management Programs Section, Engineering Inspection Branch — 4/15/81 date signed

Inspection Summary:

Inspection on February 2-6 and 18-20, 1981, (Report No. 50-334/81-03)
Areas Inspected: Routine, unannounced inspection by a region-based inspector of followup on previously identified inspection findings; administrative controls for safety related maintenance; implementation of safety-related maintenance; adequacy of housekeeping and cleanliness program. The inspection involved 51 inspector-hours onsite by one region-based inspector.

Results: Noncompliances: None in four areas but one in one area (failure to take adequate corrective action for a previously identified item of noncompliance - paragraph 2).

DETAILS

1. Persons Contacted

*G. Beatty, Quality Assurance Engineer
R. Cameron, Maintenance Mechanical Engineer
P. Dearborn, Procedures Engineer
A. Fawcett, Mechanical Maintenance Foreman
J. Forney, Instrument Engineer
**K. Grada, Nuclear Shift Supervisor
* **R. Hansen, Station Maintenance Supervisor
T. Hartman, Preventive Maintenance Scheduling Engineer
J. Holcomb, Mechanical Maintenance Foreman
J. Maracek, Senior Engineer
J. McIntire, Nuclear Services Quality Control Engineer
**A. Mizia, Senior Quality Assurance Engineer, Duquesne Light Company
W. Sarvey, House and Yard Foreman
L. Schad, Station Operations Supervisor
* **G. Sovick, Compliance Engineer
* **T. Stansburg, Nuclear Services Audit Coordinator
D. Timko, Procedures Engineer
J. Vassello, Nuclear Training Supervisor
**J. Werling, Station Superintendent
*H. Williams, Nuclear Shift Engineer

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**D. Beckman, Senior Resident Reactor Inspector
J. Hegner, Resident Reactor Inspector

The inspector also interviewed other licensee employees including reactor operators, staff engineers, and clerical personnel.

*Denotes those present at exit interview conducted on February 6, 1981.

**Denotes those present at exit interview conducted on February 20, 1981.

2. Licensee Action on Previous Inspection Findings

(Closed) Inspector Follow Item (334/79-14-05): License Amendment No. 17, which in part, deletes all reference to part length rods in the Technical Specifications, had not been incorporated into the

Station Technical Specifications since part lengths rods were still installed. Part length rods were removed during the 1980 refueling outage. The inspector verified that Amendment No. 17 to the Station Technical Specifications had been posted. The inspector had no further questions. This matter is closed.

(Closed) Infraction (334/79-17-07): Valve 1-SI-29, 1A Low Head Safety Injection (LHSI) Pump Minimum Flow Line Check Valve, was heated with a torch and struck with a hammer to free a stuck valve disc. This maintenance on a safety related component was accomplished without use of a properly approved procedure. Followup action concerning this item was accomplished during inspection 334/80-01. This item remained open pending confirmation of reinstruction of maintenance personnel. The inspector discussed this item with the Maintenance Foreman who directed the work, who stated that the welder who repaired the valve had been personally reinstructed by him and that other maintenance personnel had been reinstructed by required reading of changes to the BVPS Maintenance Manual. The inspector determined that BVPS Maintenance Manual Chapter 1, Section A, has been revised to more clearly define the type of maintenance work requiring a procedure.

The licensee's reply to this item stated that replacement of this valve was planned. The inspector determined that the valve had not been replaced; however, the inspector did review a completed Maintenance Request 79-1359 with associated documentation and determined that the valve was opened, inspected, and repaired in place. Based upon the corrective action taken, this item is considered closed.

(Closed) Infraction (334/79-17-08): Sixteen operational surveillance tests (OST's) of safety related pumps were performed during August, 1979 using a portable vibration monitor which had exceeded its calibration due date. The inspector determined that this test instrument was subsequently calibrated by an outside vendor and returned to the station. Based on the instrument calibration data received from the vendor, the pump OST vibration readings were recalculated and still found to be within specification. The inspector randomly reviewed five of the sixteen OSTs and determined that recalculations had been completed and vibration data were within specification.

In addition, the inspector interviewed the preventive maintenance (PM) engineer, reviewed current computer printout schedules for test equipment, randomly reviewed calibrations of selected pieces of test equipment, and specifically reviewed the calibration of

pump vibration meter ID-191-2, which used for the tests in question, and determined that calibrations of test equipment are being controlled and accomplished in a timely manner. This item is considered closed.

(Closed) Unresolved Item (79-20-02): Licensee to develop a preventive maintenance (PM) program for GE Type AK-2 Circuit Breakers as requested by IE Bulletin 79-09. Followup during inspection 79-22 determined that PM procedures had been developed for these breakers and this work would be performed during the 1980 refueling outage. During this inspection, the inspector determined that the following PM procedures for the subject breakers had been completed:

-- PM 1-39DC-BAT-1-IE, Completed October 21, 1980;

-- PM 1-39DC-BAT-2-IE, Completed October 15, 1980;

-- PM 1-39DC-BAT-3-IE, Completed October 21, 1980;

-- PM 1-39DC-BAT-4-IE, Completed October 30, 1980;

-- PM 1-39DC-BAT-5-IE, Completed October 24, 1980;

-- PM 1-39DC-BKR-1-IE, Completed October 22, 1980; and

-- PM 1-39DC-BKR-2-IE, Completed October 22, 1980.

Based upon the licensee's corrective action, this matter is considered closed.

(Open) Deficiency (334/80-05-01): Calibration of seismic monitoring and meteorological monitoring instrumentation required by the Technical Specifications was being performed with unreviewed and nonapproved procedures; and, in addition, records of these calibrations were not being maintained. The inspector determined that corrective action regarding this item was unsatisfactory. Inspection report item 334/80-05-01 identified the following discrepancies:

(1) Calibrations of seismic monitoring and meterological monitoring instrumentation required by Appendix A to the Technical Specifications were being done by a vendor, NUS Corporation, using a procedure written by NUS which had not been reviewed by the OSC or the plant superintendent.

(2) Licensee Procedures MSP 45.02, Seismic Monitoring Instrumentation Calibration Engdahl System, and MSP 45.17, Meteorological Monitoring System Calibration, which had been reviewed by the OSC and approved by the Plant Superintendent were not in use.

(3) Records of the calibrations were not being maintained by the licensee as required by the Technical Specification 6.10.d.

Licensee letter dated April 17, 1980 stated that the vendor procedure would be reviewed and approved by the licensee; and that the current purchase order and any future purchase orders for the vendor's service will require that the procedure and any changes to the procedure shall have station approval prior to test acceptance. The inspector did verify that contracts with NUS now specify that the vendor will use a licensee-approved procedure and that any changes shall have licensee approval prior to test acceptance.

In addition, the inspector verified that OSC meeting BV-OSC-71-80 reviewed NUS Procedure 1539, Volume 2, Part 1, Section 4.0, Revision 2, draft "Beaver Valley Meteorological Monitoring System Maintenance and Calibration Procedure" and recommended its approval. However, there was no documentation of Plant Superintendent approval.

A letter BVPS 1:RLH:15, dated June 16, 1980, had been sent to NUS Corporation stating that their procedure had been approved by the station. This letter was signed by the Station Maintenance Supervisor. The Station Maintenance Supervisor stated that his letter did not constitute approval for the NUS procedure but only provided information to them.

10 CFR 50, Appendix B, Criterion XVI, requires, in part, that deficiencies and deviations be corrected; corrective action be taken to preclude repetition; and that corrective action be reported to appropriate levels of management. Based on a review of the licensee's corrective actions, the inspector determined that management controls for corrective action and the corrective actions taken were inadequate, in that for the tests performed July 12, 1980; November 1, 1980; and February 9, 1981 discrepancies, in addition to those noted above, were observed as follows:

-- Changes were made to the format of the vendor procedure data sheets for the tests performed November 1, 1980 and February 5, 1981. Since the format of the data sheets is dependent upon the format of the basic procedure, it appears also that a

change to the basic procedure had occurred. However, the revised basic procedure control copy was not being maintained by the station staff. There was no documentation to indicate that the revisions had been reviewed by the OSC or approved by the Station Superintendent.

-- Technical Specification 6.8.3 requires that minor changes which do not change the intent of the procedure be ultimately reviewed by the OSC and approved by the Station Superintendent. Contrary to this requirement, the DLC letter of June 16, 1980 authorized NUS to make minor "non-intent" procedure changes including changes in format without further station approval.

-- Copies of data sheets for completed tests were given to the station for review and record purposes. Many of these data sheets were visually observed to be incomplete with data not recorded. In addition, copies of data which is stipulated to be recorded in the body of the procedure was not provided to the station staff.

-- Station management appeared not to be aware of the incomplete and incorrect corrective actions.

Failure to take adequate corrective action for a previously identified item of noncompliance; failure to review and approve changes to procedures which accomplish Technical Specification surveillances; failure to maintain procedures which accomplish Technical Specification surveillances; and a failure to maintain completed records of completed Technical Specification surveillances is contrary to 10 CFR 50, Appendix B, Criterion XVI; Technical Specifications 6.8.1, 6.8.2, 6.8.3 and 6.10.1.d; and Regulatory Guide 1.33, Appendix A, paragraph H.2 and is an item of noncompliance. (334/81-03-03)

(Closed) Infraction (334/80-05-02): Calibration of Refueling Water Storage Tank "D" loop level instrument without use of an approved procedure and issuance of an approved procedure for calibration of RWST "D" loop level instrument which was technically incorrect in that the procedure did not reflect the actual range of the installed level instrument. The "D" loop level instrument range was modified during the 1980 refueling outage. The inspector verified that MSP 13.04, L-100 D Refueling Water Storage Tank Level Loop Channel II Calibration, revision 0, was issued and performed June 28, 1980. During performance of this procedure, numerous errors were discovered and appropriate pen and ink changes were made. Based on these changes, Revision 1 to MSP 13.04 was issued on September 22, 1980.

In addition, the inspector reviewed instrument calibration computer printouts and the computer calibration scheduling cards and verified that the computer had been reprogrammed to reference the correct calibration procedures on the schedule cards. The cards are also color coded to further identify the type of calibration procedure needed.

Based upon these findings, there are no further questions regarding this matter.

(Closed) Deficiency (334/80-05-03): Data sheets for test equipment used for performance of Maintenance Surveillance Procedures (MSPs) 6.08 and 6.38 contained out of specification data, had data not recorded, and were performed without use of calibration procedures. The inspector reviewed recently completed surveillances per MSPs 6.08 and 6.38 and identified the test equipment used for performance of these procedures. Based on a sample of test equipment used for MSPs 6.08 and 6.38 and a random review of calibration records of other test equipment, the inspector determined that for test equipment which is calibrated on site a calibration procedure is used; calibration data was being recorded and reviewed; and that the data were within specifications. Based upon this review, this item is considered closed.

(Closed) Deficiency (334/80-05-04): Operating Manual Change Notices (OMCNs) posted to the Control Procedure copy of a log sheet although a later revision was in effect; and file copies of another log sheet did not have an effective OMCN posted to it. This deficiency noted a continuing problem in the posting and utilization of temporary changes and revisions. In its initial response, the licensee stated that the administrative procedures would be revised and that a log room would be established to assure use of current procedures. The inspector determined that the following corrective actions have been taken:

(1) BVPS-AP, Chapter 11, paragraph E.7, has been revised to require that all revisions to procedures be incorporated into control copies of the procedures within three working days of their effective date.

(2) A memorandum was issued reinstructing shift supervisors and shift foremen that OMCNs to station logs must also be posted to log sheets maintained in the log file. The inspector determined that OMCNs currently in effect were posted to extra copies of log forms maintained in the control room log file.

(3) The file drawers for blank operating surveillance tests (OSTs) have been eliminated. Copies of OSTs, as needed, are made from procedures maintained in the Control Room Controlled copy procedure books. The inspector reviewed a random sample of recently completed OSTs and determined that all were accomplished using the latest revision.

In subsequent correspondence, dated February 6, 1981, the licensee stated that because of significant expenditures involved and long lead time for ordering special equipment, the log room concept was still under review but would not be implemented in the near future. To prevent recurrence of the finding, the licensee's representative stated that a Procedures Group staffed by engineers had been established to ensure that procedures are promptly revised and that control copies of procedures are up to date. For maintenance procedures, the latest copies of work procedures are issued directly by the procedures engineers. For operating procedures, checklists, and OSTs, the latest revisions are issued to the control copy books maintained in the Control Room. Working copies of procedures are made, as needed, from the control copies. Based on a random sample of maintenance and operating procedures and discussions with procedures engineers, the inspector determined that the above system appeared to be effective in controlling procedure revisions and that this finding could be closed.

During this inspection the licensee stated that the log room concept was still under active consideration to further improve procedure distribution and resolve problems which were in addition to those identfied in inspection finding 334/80-05-04. The licensee's supplemental response dated February 6, 1981, concerning final status of the evaluation for a log room, has been addressed in separate NRC correspondence dated March 3, 1981.

Based upon the licensee's corrective actions taken, there are no further questions regarding this matter at this time.

(Closed) Unresolved Item (334/80-05-06): MSP 45.01, Seismic Monitoring Test, which provides procedures for accomplishing the semi-annual channel functional test for triaxial time-history accelographer, needed to be revised to eliminate calibration procedures and to contain only the required channel functional test. The inspector verified that MSP 45.01, Revision 6, issued October 28, 1980 has been revised to specify the functional test only. This matter is considered resolved.

(Closed) Unresolved Item (334/80-05-07): The turbine trip/reactor trip set point and the turbine stop valve closure setpoint were not being calibrated. Functional tests of these set points were being accomplished as required by the Technical Specifications; however, the set points were not being calibrated as required by Regulatory Guide 1.33, Appendix A. The inspector verified that procedures to accomplish the above calibrations were written and performed as follows:

-- MSP 26.07, PS-TB-63-4AST, PS-TB63-5AST, PS-TB-63-6AST, Turbine Lube Oil, Auto-Stop Pressure Switches Protection Channel I, II, and III Calibration, performed October 18, 1980;

-- MSP 26.10, Turbine Stop Valve TV-1 Limit Switch LMS-TB33-T1 Test/Calibration, performed November 17, 1980;

-- MSP 26.12, Turbine Stop Valve TV-3 Limit Switch LMS-TB33-T3 Test/Calibration, performed November 17, 1980; and

-- MSP 26.13, Turbine Stop Valve TV-4 Limit Switch LMS-TB33-T4 Test/Calibration, performed November 17, 1980.

Based upon these findings, this matter is considered resolved.

3. Administrative Controls for Safety-Related Maintenance

Administrative Controls were inspected to determine the licensee's program for compliance to the implementing requirements associated with the conduct of safety-related maintenance as specified in Technical Specification Section 6; Regulatory Guide 1.33-1972, Quality Assurance Program Requirements; and ANSI 18.7-1972, Administrative Controls for Nuclear Power Plants. The following procedures were reviewed:

-- Quality Assurance Procedures:

  -- OP-9, Technical Procedure Control for Operations and Maintenance, Revision 2, October 6, 1978;

  -- OP-10, Maintenance and Modification Planning, Revision 3, November 20, 1979;

  -- OP-11, Control of Maintenance and Modification, Revision 4, July 18, 1980.

-- Station Administrative Procedures (SAPs):

  -- SAP-5B, Test Group, Revision 0, September 1, 1980;

  -- SAP-8, Maintenance, Revision 0, September 1, 1980;

  -- SAP-9B, Housekeeping Program, Revision 0, September 1, 1980;

  -- SAP-10, Onsite Safety Committee, Revision 1, September 26, 1980;

  -- SAP-11, Procedure Preparation, Review and Approval, Revision 2, September 26, 1980.

  -- SAP-7, Office Security, Revision 2, December 3, 1980.

-- Beaver Valley Power Station - Maintenance Manual - Chapter 1, Conduct of Maintenance:

  -- BVPS-MM Chapter 1A, General Rules for Implementation, Revision 11, March 18, 1980;

  -- BVPS MM, Chapter 1B, Corrective Maintenance Procedures, Revision 5, February 2, 1979;

  -- BVPS-MM, Chapter 1C, Welding Procedures, Revision 3, November 1, 1977;

  -- BVPS-MM, Chapter 1E, Preventive Maintenance, Revision 4, February 2, 1979;

  -- BVPS-MM, Chapter 1H, Cleaning and Maintaining Cleanliness, Revision 0, January 9, 1975;

  -- BVPS-MM, Chapter 15, Housekeeping, Revision 8, September 10, 1980;

  -- BVPS-MM, Chapter 1L, Maintenance Planning and Scheduling, Revision 0, March 6, 1975;

  -- BVPS-MM, Chapter 1W, Maintenance Procedure for Procedure Control, Revision 2, March 2, 1979.

-- BVPS Training Manual, Section 6, Maintenance Training, Revision 2, May 22, 1980.

4. Review of Implementation of Safety-Related Maintenance Activities

a. A sampling inspection was conducted of selected safety-related maintenance performed by the licensee to determine that:

-- Technical Specification requirements were satisfied while equipment was out of service;

-- Selected maintenance activities had been conducted in accordance with administrative procedures as detailed in Paragraph 3;

-- An approved procedure was used for those maintenance activities which could be considered beyond the skills normally possessed by qualified maintenance personnel;

-- Inspections of maintenance activities as required by administrative procedures were performed; and

-- Records to substantiate quality of work and parts used were available (this includes documentation associated with procurement, inspections, and test results) for a sample of parts that were listed on Maintenance Work Requests as detailed in Paragraph 4.b.

The inspection included a review of maintenance work requests (MWRs) as detailed in Paragraph 4.b and associated maintenance procedures.

b. Documentation of the following Maintenance activities were reviewed:

-- MWR 80-1463, Replace Boric Acid Transfer Pump Shaft and Shaft Seal, completed October 29, 1980; and associated procedure Corrective Maintenance Procedure (CMP) 1-7CH-P-2A-1M, 2A Boric Acid Transfer Pump Overhaul, Revision 1, April 30, 1979;

-- MWR 80-0441, Repair Reactor Coolant Pump 1B Seal Injection Valve Leakage, Completed May 29, 1980; and associated procedures CMP 1-75-54, Repair Velan Type TM-58-FN Limitorque Operated Valve, Revision 1, April 18, 1978; CMP 1-75-16,

Adjustment of Limitorque Operator Limit Switch, Revision 0, November 15, 1975; CMP 1-75-6, Replacement of Torque Switch in Type SMB-000 Limitorque Operator, Revision 0, June 25, 1975; CMP 1-75-139, Replacing Valves Using Grafoil Packing, Revision 0, October 2, 1978;

-- MWR 80-7126, Install New Oil Seal in Containment Quench Spray Pump Inboard Bearing Housing, Completed October 1, 1980; and associated procedure CMP 1-13QS-P-1A-1M, 1A Quench Spray Pump Overhaul, Revision 0, November 19, 1976;

-- MWR 80-6871, Remove and Replace Boron Injection Tank Outlet Valve, completed September 14, 1980, and associated procedure CMP 11 SI-MOV-867C-1M Removal and Replacement of 11 SI-MOV-867C, Revision 0, August 12, 1980;

-- MWR 79-1253, Removed and Lapped Seat of Safety Injection System Fill Header Valve SI-384, Completed August 4, 1980; and associated procedure CMP 1-75-57, Repair Rockwell 3/4", 1", 1 1/2", and 2" T-58 Globe Valve, Revision 2, August 28, 1978;

-- MWR 80-1257, Charging Pump Bearing High Temperature, completed September 5, 1980 and associated procedure CMP 1-7CH-P-1A, B, C-2M, 1A, 1B, or 1C Charging High Head Safety Injection Pump High Speed Gear Drive Oil Cooler and Pump Oil Cooler System Cleaning, Revision 0, September 5, 1978;

-- MWR 80-0892, Trouble Shoot and Repair Signal Summator for T/T-avg Channel 4/2 (Low and High Limits Will Not Function) completed July 2, 1980; and associated procedure Maintenance Surveillance Procedure (MSP) 6.38, T-RC 412 T-Tavg Protection Instrument Channel I Calibration.

c. Findings:

(1) The inspector determined that more than 300 MWRs of the approximately 6700 MWRs generated during the year 1979 remained outstanding. The licensee's representative stated that approximately 500 MWRs remain oustanding for all years. Inspection of a random sample of eleven outstanding MWRs issued in 1979, determined that four had been completed, however, administratively overlooked,

three had been voided and four had been started but not completed.

The licensee's representative stated that the number of outstanding MWRs had been a concern and that a contractor consultant was currently working full time at resolving the status of all outstanding MWRs and that they had been reduced from about 1,000 to 500 since October 1980. The inspector stated a concern that a system be developed to assure that outstanding MWR status be properly tracked. The licensee's representative concurred with the inspector's concern and stated that by March 31, 1981 a method would be developed to periodically review outstanding MWRs. At this time a date for full implementation would be determined. This item will be reviewed on a subsequent inspection. (50-334/81-03-01)

(2) BVPS-MM, Chapter 1, Section A, Paragraph 13, states in part, "... Written procedures and instructions shall be made available to the person responsible for the task and will be followed ... When a procedure is completed, the person responsible for the task shall verify completion with his initials and date ...". The inspector observed that neither corrective maintenance nor preventive maintenance procedures were signed or initialed when completed nor is signoff space identified on the procedures for this purpose. A licensee representative stated that the signoffs in Section 3 of the MWR by the leadman and the maintenance foreman constituted verification that the procedure had been properly completed as the procedure is referenced on the MWR. The inspector noted that instructions in BVPS-MM, Chapter 1, Section A for completing the MWR did not state that the signoffs in Section 3 of the MWR certified completion of the procedures.

The licensee's representative stated that BVPS, MM, Chapter 1 would be changed to state that signatures by the leadman and maintenance foreman would certify completion of the portions of corrective or preventive maintenance procedures used to accomplish the work; and, that this change will be completed by March 31, 1981. This item is unresolved pending licensee action and subsequent NRC:RI review (50-334/81-03-02).

(3) The inspector observed that numerous maintenance surveillance procedures were waiting review by the instrument engineer or had been reviewed by the instrument engineer but discrepancies noted during this review had not been resolved. The licensee stated that only one instrument engineer was available at this time and the workload was such that completed procedure review had been given a lower priority. A recent NRC Systematic Assessment of Licensee Performance (SALP) review noted a lack of manpower in the areas of maintenance and calibration.

The licensee's representative informed the inspector that corporate management had authorized an increase in instrument personnel and the establishment of an Instrument and Control (I&C) Department separate from the Maintenance Department. The licensee's representative also stated that since the establishment of an I&C Department will take some time, a contract engineer will be established on site by March 2, 1981 for the express purpose of eliminating the back log of the completed calibration procedure (MSP) reviews. This item will be reviewed during a subsequent NRC:RI inspection (334/81-03-04).

5. Review of Safety-Related Maintenance Program

An inspection was conducted to determine adequacy of the licensee's overall program for the performance of corrective maintenance, equipment control and release for performance of maintenance, and establishment of a preventive maintenance program and to determine that:

-- Administrative controls for these programs had been established;

-- Responsibilities for performing various aspects of the program had been designated;

-- Procedures for inspection and maintenance of records of maintenance activities had been established;

-- Preventive maintenance schedules had been established;

-- Control of special processes had been established;

-- Methods for equipment control during maintenance had been established; and

-- Maintenance program conformed to the following Regulatory Guides and ANSI Standards as specified in the Duquesne Light Company, Operations Quality Assurance Program and the Beaver Valley Unit No. 1 Final Safety Analysis Report, Appendix A, Quality Assurance:

(1) ANSI 45.2.8-1975, "Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants";

(2) Regulatory Guide 1.33-1972, "Quality Assurance Program Requirements (Operation)"; and

(3) ANSI N18.7-1972, "Administrative Controls for Nuclear Power Plants."

No unacceptable conditions were observed.

6. Review of Housekeeping and Cleanliness Program

An inspection was conducted to determine the adequacy of the licensee's overall program for the maintenance of general plant housekeeping, maintenance of cleanliness and protection of open safety related systems and components, and the cleaning of systems and components and to determine that:

-- Administrative controls of these programs have been established;

-- Requirements and responsibilities for general plant housekeeping have been established;

-- Requirements and responsibilities have been established for protection of previously cleaned systems and components and for protection of open safety related systems which require special cleanliness controls;

-- Methods have been established for cleaning of systems and components which have special cleanliness requirements; and

-- Housekeeping and cleanliness program conformed to the following Regulatory Guide and ANSI Standards as specified in the Duquesne Light Company, Operations Quality Assurance Program and the Beaver Valley Unit No. 1 Final Safety Analysis Report, Appendix A, Quality Assurance:

(1) Regulatory Guide 1.37, Revision 0, March 1973, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants";

(2) ANSI N45.2.1-1973, "Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants";

(3) Regulatory Guide 1.39, Revision 2, September 1977, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants"; and

(4) ANSI N45.2.3-1973, "Housekeeping During the Construction Phase of Nuclear Power plants".

No unacceptable conditions were identified.

7. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable, deviations or items of noncompliance. An unresolved item was identified as detailed in paragraph 4.c.(2).

8. Management Meetings

Licensee Management was informed of the scope and purpose of the inspection at the entrance interview conducted on February 2, 1981. The findings of the inspection were periodically discussed with licensee representatives during the course of the inspection. Exit interviews were conducted on February 6 and February 20, 1981 (see Paragraph 1 for attendees), at which time the findings of the inspection were presented. A subsequent telephone discussion concerning the inspection findings was conducted between the inspector and the Plant Superintendent on March 6, 1981.