

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

Region I

Report No. 78-20

Docket No. 50-334

License No. DPR-66 Priority - - Category C

Licensee: Duquesne Light Company

435 Sixth Avenue

Pittsburgh, Pennsylvania

Facility Name: Beaver Valley Power Station, Unit 1

Inspection at: Shippingport, Pennsylvania

Inspection conducted: August 8-11, 1978

Inspectors: D. Johnson
D. Johnson, Reactor Inspector

8/28/78
date signed

J. Staveley, Jr., Co-op

date signed

date signed

Approved by: R.R. Keimig
R.R. Keimig, Chief, Reactor Projects
Section No. 1, RO & MS Branch

8-29-78
date signed

Inspection Summary:

Areas Inspected: Routine, unannounced inspection by regional based inspectors of Technical Specification surveillance test program including selected test procedures and completed test data; safety limits, limiting safety system settings, limiting conditions for operation; licensee action on previous inspection findings; and facility conditions as noted by inspector tour. The inspection involved 29 inspector-hours by one NRC inspector.

Results: Of the four areas inspected, no items of noncompliance were found in three areas; two apparent items of noncompliance were found in one area (Infraction - failure to have approved procedures for the conduct of surveillance testing - Paragraph 5. Infraction - failure to establish periodic review requirements for Maintenance Procedures, Paragraph 6).

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DETAILS

1. Persons Contacted

Mr. D. Arnold, Radiation Control Foreman
*Mr. J. Carey, Technical Assistant
*Mr. E. Conrad, Senior Maintenance Engineer
Mr. R. Druga, Shift Foreman
Mr. J. Hrivnak, Station Quality Assurance
*Mr. R. Jurrus, Nuclear Services Corporation
*Mr. F. Lipchick, Station Quality Assurance
Mr. R. Mafice, Results Coordinator
Mr. J. Maracek, Reactor Engineer
Mr. R. Prokopovich, Shift Foreman
*Mr. L. Schad, Operations Supervisor
Mr. E. Schnell, Radiation Control Foreman
Mr. T. Slavic, Instrument and Control Engineer
Mr. R. Stull, WISCO (Westinghouse Instrument Services Company)
Mr. J. Turner, Shift Foreman
Mr. J. Welch, WISCO
*Mr. J. Werling, Station Superintendent

The inspector also talked with and interviewed several other licensee employees, including technical personnel and plant operators.

*denotes these present at exit interview.

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (334/77-25-01). The inspector reviewed OST 1.30.2 "River Water Pump 1A Test" and verified that the test results were within the acceptance criteria established by the Technical Specifications. Pump performance curves indicated satisfactory pump operation. In order to meet Technical Specification requirements, the pump discharge valves must be throttled to obtain the proper discharge pressure. The licensee has submitted to NRR a request to delete the requirement to measure pump discharge pressure and substitute the requirements established by ASME Section XI to ascertain adequate pump performance.

3. Surveillance Testing

a. Surveillance tests were reviewed on a sampling basis to verify the following:

-- Tests required by Technical Specifications are available and covered by properly approved procedures.

- Test format and technical content are adequate and provide satisfactory testing of related systems or components.
 - Test results of selected tests are in conformance with Technical Specifications and procedure requirements have been reviewed by someone other than the tester or individual directing the test.
- b. The selected Technical Specification (TS) surveillance requirements, associated test procedures and data (indicated by date of performance) are listed below.
- TS 4.3.3.6.1, 4.3.3.6.2, 4.3.3.6.3, and 4.7.14.2.b.
OST 1.33.13, Revision 0.
January 6, 1978, Fire Protection System Detection Instrumentation Test.
Data: April 25, 1978.
 - TS 4.4.6.1.a.
OST 1.43.1, Revision 2, May 10, 1977.
Technical Specification Required Area and Process Monitor's Channel Functional Test.
Data: June 4, 1973, May 5, 1978,
April 5, 1978, March 13, 1978.
 - TS 4.4.6.1.a.
MSP 43.08, Revision 0, July 29, 1977.
Radiation Area Monitor RM-RM 215A Containment Particulate-Calibration.
Data: August 7, 1977.
 - TS 4.4.6.1.a.
MSP 43.19, Revision 0, July 29, 1977.
Radiation Area Monitor RM-RM 215B Containment Gas-Calibration.
Data: August 3, 1977.
 - TS 4.4.6.1.a.
MSP 43.07B2, Revision 0, July 28, 1977.
Radiation Log Rate-meter Area and Process Monitor Quarterly Calibration (Radiological).
Data: August 12, 1977.
 - TS 4.4.6.1.a.
MSP 43.07B2, Revision 0, July 28, 1977.
Radiation Log Rate-meter Area and Process Monitor Eighteen Month Calibration (Radiological).
Data: August 13, 1977.

- TS 4.4.6.1.b.
MSP 9.05, Revision 0, April 27, 1977.
Containment Sump Flow Measuring System Calibration.
Data: not available.
 - TS 4.5.2.b.
OST 1.74, Revision 6, February 16, 1977.
Centrifugal Charging Pump Test [ICH-P-1A].
Data: January 6, 1978, December 14, 1977,
November 17, 1977, October 20, 1977.
 - TS 4.5.2.b.
OST 1.75, Revision 6, February 16, 1977.
Centrifugal Charging Pump Test [ICH-P-1B].
Data: June 14, 1978, May 22, 1978,
April 17, 1978, March 22, 1978.
 - TS 4.6.2.3.a.
OST 1.13.10, Revision 8, February 16, 1977.
Spray Additive System Valve Position and Operability
Check.
Data: June 22, 1978, May 25, 1978,
April 27, 1978, March 29, 1978.
 - TS 4.7.14.1.3.c.
MSP 33.04, Revision 0, March 27, 1978.
Diesel Engine Driven Fire Pump Battery Inspection.
Data: June 2, 1978.
 - TS 4.7.14.1.2.b.
MSP 33.04, Revision 0, March 27, 1978.
Diesel Engine Driven Fire Pump Battery Inspection.
Data: June 2, 1978.
- c. During the review of OST 1.33.13, Fire Protection System Detection Instrumentation Test, it was noted that the stated frequency was annual (A) even though Technical Specifications 4.3.3.6.1 and 4.3.3.6.2 requires a check every six months (SA). This problem appears to be a typing error since the test is being performed semi-annually.

The licensee representative stated that OST 1.33.13 would be revised and issued to reflect the required test frequency. This item will be reviewed on a subsequent inspection. (334/78-20-04)

- d. The complete review of MSP 9.05, Containment Sump Flow Measuring System Calibration, was not possible because of missing data. The licensee representatives stated that the calibration was performed even though documentation was lacking. The calibration sticker on the flow instrument was dated December 15, 1975. The inspector determined that the filing system had been changed after this test to prevent a repeat occurrence. This item will be reviewed on a subsequent inspection. (334/78-20-05)
- e. During the examination of MSP 43.07B1, Radiation Log Ratemeter Area and Process Monitor Quarterly Calibration (Radiological), and MSP 43.07B2, Radiation Log Ratemeter Area and Process Monitor Eighteen Month Calibration, it was noted that the calibration date of test instrument Eberline M5-3 was not recorded in some tests as was required by the procedures. In fact, this instrument is not calibrated in any procedure; it is simply pulsed for an operability check. The licensee representative stated that either a procedure would be written to cover the calibration of the Eberline M5-3 or the calibration date requirement would be dropped from the two procedures. This item will be reviewed on a subsequent inspection. (334/78-20-06)
- f. The review of OST 1.43.1, Technical Specification Required Area and Process Monitor's Channel Functional Test, indicated that four high-high alarm setpoints in the tests conducted on March 13, 1978 were above the required radiation setpoints. No action was taken although it was apparently necessary according to the procedure. When the operator was interviewed, he stated that the acceptance criteria for the instrument allowed these deviations. Two of the managerial personnel who had reviewed the test and who had been interviewed prior to the operator did not know why action was not taken. They had not observed these deviations during their review or questioned the operator about the problems, which is the purpose of managerial reviews.
- These items will be reviewed in a subsequent inspection.
(334/78-20-07)
- g. A number of generic problems were noted with respect to the OST's and MSP's. The titles of the procedures were often misleading and not indicative of the exact nature of the test.

Regulatory Guide 1.33, Quality Assurance Requirements, and ANSI N18.7, Administrative Control of Nuclear Power Plants (Section 5.3.2) contain the required procedure content, including descriptive titles and Technical Specification references. One example is OST 1.13.10, Spray Additive System Valve Position and Operability Check, where the actual procedural instructions referred to the Chemical Addition System. Consistent terminology within a procedure and between the procedures and the Technical Specifications is necessary. Additional examples are MSP 33.04 and MSP 33.03 which have the same title, Diesel Engine Driven Fire Pump Battery Inspection, although different contents. The other problem involves the Technical Specification references in the procedures. They were often incomplete and sometimes incorrect.

The inspector received a commitment from the licensee to reexamine these areas during the regular periodic reviews of the procedures. This item is unresolved pending licensee action and a review by NRC: RI on a subsequent inspection. (334/78-20-03)

- h. During the review of surveillance test procedures and data, it was noted that some procedures still require the recording of calibration dates from the calibration stickers of the test instruments. The licensee representative stated that a direct calibration record check is now being implemented instead of a sticker check. The inspector expressed concern that the procedures might not reflect this changed requirement but was assured that this potential problem was being covered. This item will be reviewed in a subsequent inspection. (334/78-20-08)

4. Surveillance Testing of the Fire Protection System

During the period from January 1, 1978 thru June 30, 1978 the following fire protection instrumentation was demonstrated operable pursuant to Technical Specification 4.3.3.6.1 and 4.3.3.6.2.

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>	<u>Actual No. Installed</u>
Control Room	4	8
Cable Spreading Mezzanine	20	35
West Cable Vault	3	3
East Cable Vault	3	3
Computer Room	1	2
Normal Switchgear Room	8	13

A/E Emergency Switchgear Room	3	5
D/F Emergency Switchgear Room	3	5
Remote Shutdown Panel (Process Instrument Room)	1	12
Station Battery Rooms	1	1/room
Relay Room	1	2
No. 1 Diesel Generator	2	3
No. 2 Diesel Generator	2	3
Control Room Air Conditioning Room	3	4
Reactor Trip Breaker Room	3	4

The above testing was performed by an outside contractor without a licensee approved procedure. This represents an apparent item of noncompliance with Technical Specification Sections 6.8.1 and 6.8.2 and is categorized as an Infraction level item of noncompliance. (334/78-20-01)

5. Periodic Revision of Facility Procedures

The inspector determined from review of applicable records and discussions held with licensee representatives, that no documentary evidence was available to verify the periodic review of maintenance surveillance procedures performed, pursuant to Technical Specification Section 6.8.2. In addition the licensee has not established requirements for the periodic review pursuant to Technical Specification Section 6.8.2. This is an item of noncompliance categorized as an Infraction level. (334/78-20-02)

6. Review of Safety Limits (SL), Limiting Safety System Settings (LSSS) and Limiting Conditions for Operation (LCO's)

- a. A review was conducted to ascertain that operations are in conformance with Technical Specification requirements for safety limits, limiting safety system settings and limiting conditions for operation.

The review consisted of a combination of monitoring of plant instrumentation, review of process instrumentation records, visual observation of certain breakers and components, examination of surveillance and calibration records, and discussions with plant personnel.

The below listed Limiting Conditions for Operation, Safety Limits and Limiting Safety System Setpoints were reviewed.

<u>Tech Spec Reference</u>	<u>Item</u>	<u>Basis</u>	<u>Record Source</u>
4.1.3.2	agreement of demand position indicator system and control rod position indicators channels.	R.R.	L5-1 L5-2 L5-3 L5-4
4.1.3.5	control bank insertion limits (IL's)	R.R.	L5-4
3.2.1	axial flux difference	R.R.	L1-3
3.4.3, 4.4.3, 3.4.2, 4.4.2	pressurizer safety setpoint	R.R.	MSP 6.19, NCO log
3.3.1.1.	Reactor Protection System	R.R. I.O.	L5-5, L5-6, L5-9, L5-10, NCO log, Shift Supervisor's Log

I.O. - Inspector Observation of plant process instrumentation
R.R. - Record Review by inspector (surveillance, calibration, recorder charts and computer printouts)

Inspector observation was limited due to the plant being in cold shutdown.

It was noted by the inspector that the overpower ΔT entry in log L5-5 indicates the wrong channel. This matter was brought to the attention of the licensee. This item will be reviewed in a subsequent inspection. (334/78-20-09)

7. Facility Tour

The inspector conducted a tour of the Control Room and selected parts of the Auxiliary Building. Only limited portions of these areas were operational because of the status of the plant (cold shutdown). No items of noncompliance were identified.

8. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether the items are acceptable or items of noncompliance. An unresolved item disclosed during this inspection is discussed in paragraph 3.g.

9. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on August 11, 1978. The scope and findings of the inspection were summarized. The licensee representatives acknowledged the inspection findings.