



Duquesne Light

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April 11, 1984

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

ATTENTION: Mr. Richard W. Starostecki
Division of Project and Resident Programs

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50-412
USNRC IE Inspection Report No. 50-412/83-11
Supplement Report No. II

Gentlemen:

This letter provides additional information relative to our previous responses to the subject inspection report.

In our response dated October 7, 1983 (Reference 4), under the heading "Corrective Action to Prevent Further Violations" DLC committed to four steps which have been completed.

1. A Beaver Valley Power Station, Unit 2 (BVPS-2), Inspection and Enforcement Position relative to the identification of ASME Code Editions in the FSAR has been made available to Mr. G. Walton, the NRC Senior Resident Inspector. This position addresses both the concerns of Inspection Report 50-412/83-07 (Unresolved Item 02) and the concern of the subject inspection.
2. Power Piping Company (PPCo) has revised heat treatment procedure N-1141-P-8, Revision 1, to comply with the current requirements of specification 2BVS-58.
3. PPCo has reported that all its fabrication, examination, and testing procedures are in compliance with 2BVS-58 requirements.
4. A furnace survey was performed in accordance with PPCo Procedure SFT-1, Revision 0. The results indicate that a maximum variance of 75°F in the furnace working zone at the 1100°F to 1200°F soaking temperature range was achieved. This degree of temperature uniformity provides sufficient assurance that the number of recording thermocouples used was acceptable to control PWHT for piping spools.

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As indicated in our previous responses (References 4 and 5) a total of 35 ASME III pipe spools were identified as having been PWHT in accordance with PPCo Procedure N-1141-P-8, Revision 1.

The determination of maximum heating and cooling rates required for heat treating by ASME III NB-4624 was based upon the nominal thickness for standard pipe sizes and the specified minimum wall thickness for special size pipe butt welds between equal thickness weld end preparations. Special wall pipe was ordered to satisfy minimum wall requirements based on system pressure, temperature, high energy pipe break conditions, and workmanship allowances. The use of the exact maximum thickness of the weld or base materials is not considered to be required by the code. The heating and cooling rate control was required above 800°F in accordance with NB-4624, Winter 1973 Addenda, which was adopted for BVPS-2 in lieu of the 600°F control temperature required by the originally specified 1971 Edition, Winter 1972 Addenda.

Using the above bases, PPCo and their ANI have recertified 29 of the 35 ASME III spools which were heat treated under N-1141-P-8. The remaining spools include three butt-welded relief valve headers and three spools with built-up weld ends which will require final PWHT in the field. Prior heat treatment of these remaining spools will be considered as intermediate PWHT meeting the requirements of NB-4630.

The field PWHT of the three spools with built-up butt weld ends will be included in PWHT of the field butt welds. This will require an increased PWHT band width of 2 inches beyond the weld build-up to ensure compliance with NB-4626.3.

The nonconforming welds on the three relief valve headers will be reheat treated as a unit to minimize temperature gradients through the header assembly. The two headers with acceptable relief valve nozzle butt welds will have these welds documented as receiving an additional PWHT cycle to ensure compliance with the rules for cumulative time at temperature of NB-2400 and NB-4300.

PWHT performed by PPCo on these six spools is acceptable in accordance with ASME III NB-4630 (intermediate PWHT). Magnetic particle examination (MT) of these welds is not required since the actual heating and cooling rates were less than 600°F per hour divided by half the maximum (i.e., the specified) thickness of the material in inches at the weld and in no case in excess of 600°F per hour at temperatures above 600°F.

To ensure acceptable heating and cooling rates, the field will use the maximum recorded thickness from the weld end preparation minimum wall verification data given in the weld documentation package for ASME III PWHT.

The base metal and weld repairs made on spool Nos. MSS-43-3 and MSS-43-6 using 175°F preheat without final PWHT are acceptable. The base materials have reported carbon contents less than 0.30 percent and, as such, are exempt from PWHT without preheat in accordance with ASME III Table NB-4623.1-2, Winter 1973. The intent of 2BVS-58 to require a 200°F preheat for all P-1 material in excess of 3/4 inches was to avoid potential nonconformances due to material carbon content differences and to simultaneously satisfy ANSI B31.1 and ASME III preheat rules for exempting PWHT.

Documentation for MSS-43-2 has been revised to reference an approved procedure qualified with the same essential variables but including PWHT for shop weld "A".

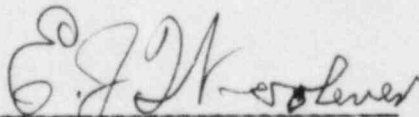
PPCo Welding Procedures 1021 and 1042 were revised to permit PWHT temperatures between 1100°F and 1250°F which is acceptable in accordance with ASME III Table NB-4623.1-1. Requalification of these welding procedures was not required in accordance with ASME Interpretation No. IX-79-13. Spool No. MSS-043-6 is acceptable on this basis.

PPCo documentation has been revised to reflect the above-mentioned corrections and will be forwarded to BVPS-2 for acceptance. The NPP-1 forms for the 29 acceptably heat-treated spools have been revised to include a reference to ASME III NB-4620, Winter 1973, for PWHT.

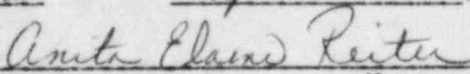
A recent NRC letter, dated March 30, 1984, questions the bases for determining thicknesses used for controlling PWHT time at temperature and heating/cooling rates. An additional review will be performed to determine that the ordered (i.e., the specified minimum) wall thickness, is representative of the actual butt weld end prep thicknesses of the 28 spools fabricated with special size pipe. The results of the review will be used to determine the acceptability of using the specified pipe wall thickness for controlling PWHT time at temperature and heating/cooling rates.

Completion of this evaluation is expected by June 1, 1984. The results of the evaluation will be provided to the NRC Senior Resident Inspector for review.

DUQUESNE LIGHT COMPANY

By 
E. J. Woolever
Vice President

SUBSCRIBED AND SWORN TO BEFORE ME THIS
11th DAY OF April, 1984.


Notary Public

ANITA ELAINE REITER, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1986

RW/wjs

cc: Mr. G. Walton, NRC Resident Inspector
Mr. M. Lacitra, Project Manager
NRC Document Control Desk

- REFERENCES: 1) NRC letter Docket No. 50-412, dated September 9, 1983
2) NRC letter Docket No. 50-412, dated January 4, 1984
3) NRC letter Docket No. 50-412, dated March 30, 1984
4) Duquesne Light Company letter 2NRC-3-075, dated October 7, 1983
5) Duquesne Light Company letter 2NRC-4-021, dated March 1, 1984

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

On this 11th day of April, 1984, before me,
a Notary Public in and for said Commonwealth and County, personally
appeared E. J. Woolever, who being duly sworn, deposed and said that (1) he
is Vice President of Duquesne Light, (2) he is duly authorized to execute
and file the foregoing Submittal on behalf of said Company, and (3) the
statements set forth in the Submittal are true and correct to the best of
his knowledge.

Anita Elaine Reiter
Notary Public
ANITA ELAINE REITER, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1986