



Duquesne Light

435 Sixth Avenue
Pittsburgh, Pennsylvania
15219

(412) 471-4300

October 17, 1979

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

ATTENTION: Mr. Robert T. Carlson, Chief
Facility Construction and Engineering Support Branch

SUBJECT: Beaver Valley Power Station Unit No. 2
Docket No. 50-412
USNRC IE Inspection Report No. 50-412/79-05

Gentlemen:

This is in response to the item of infraction cited in
Inspection Report No. 50-412/79-05 and listed in Appendix A
(Notice of Violation) attached to your letter to
Mr. E. J. Woolever dated September 17, 1979.

NRC VIOLATION

10 CFR 50, Appendix B, Criterion XIII, states, in part:
"Measures shall be established to control the handling,
storage... preservation of material and equipment... to
prevent damage or deterioration. When necessary...
special protective environments, such as inert gas
atmosphere, ... shall be specified and provided."

The Beaver Valley Power Station - 2 PSAR, Section 17.2,
states in part: "The Duquesne Light Company Quality
Assurance Program establishes measures to control
handling, storage, shipping, cleaning, and preserva-
tion of material and equipment in accordance with
work and inspection instructions to prevent damage
or deterioration. When necessary for particular
products, special protective environments, such as
inert gas atmosphere, specific moisture content

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levels, and temperature levels, shall be specified and provided, and methods for verification of the existence of these environments during handling, storage, or shipping shall be specified."

The Duquesne Light Company Nuclear Quality Assurance Manual, Section 13.3, states in part: "The procedures and instructions shall be utilized to assure that items subject to deterioration or damage through exposure to air, moisture or other environments during storage periods, are cleaned and have necessary preservation applied as required to prevent damage..."

Contrary to the above, as of July 26, 1979, Field Construction Procedure FCP-201, titled "Cleaning and Maintaining the Cleanness for Piping, Tubing and Associated Components" which was identified by the Engineers Specification 2BVS-981 as the applicable procedure for storage and maintenance of equipment following its installation, did not require that an inert gas atmosphere be provided for certain components or that alternate measures be taken to protect the internal surfaces of the components, despite the fact that Specification 2BVS-981 prescribed an inert gas atmosphere. As a result, a number of such components, including Primary Component Cooling Water Heat Exchangers No. 2-CCP-E-21A, B and C had been stored without a protective internal environment since their installation, a period of approximately two years.

This item is an infraction.

RESPONSE

- (1) It is considered that the statement in the Notice of Violation, "despite the fact that Specification 2BVS-981 prescribed an inert gas atmosphere", could be misconstrued as a specification violation. The Specification 2BVS-981 states, "Maintain atmosphere control on shell and tube side until pipe erection begins on the respective piping nozzles. At this point the requirements of FCP-201 apply."

The specific components referenced in the Notice of Violation were received on site in March 1977, installed in position November 1977, and had the inert gas pressure removed January 1979, when piping erection began. Therefore, the possible inference that the specification was violated is incorrect.

On the above basis, the statement, "including Primary Component Cooling Water Heat Exchangers No. 2-CCP-E-21A, B and C had been stored without a protective internal environment since their installation, a period of approximately two years", is also incorrect.

- (2) Our interpretation of the infraction reported above indicates that the requirements of our Field Construction Procedure 201, "Cleaning and Maintaining the Cleanness for Piping and Tubing and Associated Components", is considered to be insufficient to prevent damage or deterioration after piping erection commences, of the specific heat exchangers referenced and similar type components described in Paragraph 4 of the Inspector's Report (79-05).

The Field Construction Procedure (FCP) 201, which is reviewed and approved by Engineering, requires that except during the welding processes, covers are maintained on open ended nozzles, pipes and apertures and that as the welding of the piping system progresses, covers are maintained on open pipe ends.

We have investigated the rationale utilized by Engineering to support their position that the requirements of the referenced FCP-201 are sufficient to prevent damage or deterioration of the referenced components in the installed condition as previously described.

This investigation included the review of the shell and internal component material of 41 major heat exchangers and vessels, including those referenced in the Notice of Violation and the Inspector's Report (79-05), Paragraph 4. The tubes in all cases consisted of corrosion resistant material; the internal components consisted of 9 types of carbon steel.

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From an available report applicable to the corrosion of carbon steel in an environment at this site, it would be expected that the corrosion rate would be 2.5 mils per year against a designed lifetime corrosion allowance of 125 mils, confirming standard technical references. The report is based upon exposure to conditions that are considered more severe than conditions expected to apply to a component controlled by the requirements of FCP-201.

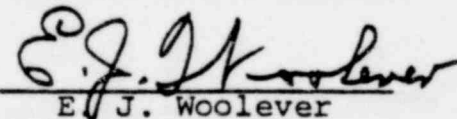
The above information is considered sufficient to support the engineering rationale in applying FCP-201 to the component at the commencement of the welding process.

With the evidence presented to demonstrate that Specification 2BVS-981 was not violated and that the requirements of FCP-201 are sufficient to prevent deterioration and damage, we request that you consider the re-classification of the infraction to an unresolved item. The unresolved item would be subject to the satisfactory review of our material investigation and referenced corrosion report by the Inspector.

Inspection Report #50-412/79-05 - Correction Requested.
On another matter referenced in the same report we request a correction; this request is related to Paragraph 11, Licensee Action on Previous Inspection Findings, (Closed) Infraction (79-03-01).

Subparagraph (b) states that the two welds in question, 2CHS-010-F-02 and 2CHS-010-F-03 had 26 repairs. This should read "One repair for each weld", the repairs being performed as a result of the previous Inspector's findings and infraction (79-03-01). We assume this is a typographical error; however, this statement places on the record an erroneous adverse reflection of our welding program, and we request the record be corrected.

DUQUESNE LIGHT COMPANY

By 
E. J. Woolever
Vice President

COPIES TO: Dr. V. Stello (15)
Mr. W. G. McDonald (1)

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