Duquesne Light

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January 6, 1986

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

ATTENTION: Mr. Edward C. Wenzinger, Chief
Projects Branch 3
Division of Reactor Project

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50-412
USNRC IE Inspection Report 50-412/85-23

REFERENCE: Inspection Report No. 50-412/85-23, dated December 6, 1985

Gentlemen:

In a letter to Mr. J. J. Carey dated December 6, 1985, Region I transmitted a Notice of Violation as Appendix A. This is Duquesne Light Company's (DLC) response pursuant to the requirements of 10CFR2.201 and that Notice of Violation.

Notice of Violation (85-23-01):

10CFR50, Appendix B, Criterion III, states in part, that "measures shall be established to assure that ... the design basis ... for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions...."

Installation Specification 2BVS-977 as revised per Engineering and Design Coordination Report (E&DCR) No. 2PS-4083 dated September 24, 1985, states in part "... all instrument impulse lines are to be installed at an average slope of 1/2 inch per foot minimum, which may be relaxed to 1/4 inch per foot minimum with prior engineering approval, to eliminate construction interferences. All instrument lines must have the required average slope except a) where necessary, tube runs 1 foot 6 inches or less in length may be installed with zero slope...."

Contrary to the above, on October 31, 1985, the inspector identified on Isometric Drawings RK-313AC-1-5, RK-3265-2-1, and RK-303AB-1-6 sheet 1 that the impulse lines of transmitters 2FWE*FT100C, 2CCP*FT117B1, and 2RCS*LT460 did not specify the slopes as required by the specification. The inspector measured impulse lines with lengths greater than 18" and noted slopes from zero to 1/8" per foot.

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IE01

Response:

Instrument tubing slope criteria are specified in two distinct manners, depending on the type of tubing system involved:

- For safety-related QA Category I tubing or for Group A/Group B/Group C tubing systems as defined in Specification 2BVS-977 or for instrument tubing located in Seismic Category I areas, the tubing slope requirements are specified on the tubing isometric drawings.

  In these cases, the instrumentation and instrument tubing are pre-engineered items, and the issued isometric drawings contain the actual installation requirements for each device. Deviations from the isometrics require engineering approval prior to installation. Any unapproved deviations from the isometric drawings which are identified following tubing installation are dispositioned via N&D reports.

  Instrument tubing isometrics are prepared and reviewed in accordance with 2BVM-228. This process ensures that all engineering requirements, including tubing slope, are properly specified on the drawings.

  It should be noted that certain instrument lines or portions of instrument lines do not have to be continuously sloped. Examples include instrument lines connected to high pressure fluid systems or pneumatic systems or instrument lines made of flexible tubing. For such cases, isometric drawings may contain reduced or zero slope requirements based on the engineering considerations involved.

- For field installation of the instrument tubing performed by the contractor, the general tubing slope requirements are a minimum average slope of 1/2 inch per foot, as specified by 2BVS-977.

SWEC has completed a review of over 300 QA Category I isometric drawings for compliance with slope criteria, including those drawings identified by the inspector. This review identified 71 drawings that did not contain slope criteria for various portions of instrumentation tubing. All of the 71 drawings pertained to tubing systems for which slope criteria were not necessary based on the tubing systems or sensing medium involved. No drawing revisions or field modifications occurred as a result of this review.

Further investigation by SWEC revealed that there was a possibility for misinterpreting certain sections of 2BVS-977 regarding slope criteria. Specifically, the two methods by which slope criteria can be applied, as stated above, are discussed under the "Instrumentation Installation" section of 2BVS-977, however no explicit allowance was given for isometric drawings to be issued with the general slope criteria either reduced or nonexistent. Therefore, to preclude possible future misinterpretations of 2BVS-977, the specification has been changed, via E&DCR

2PS-4160, to explicitly state that general tubing slope criteria (and other associated requirements) apply, except for tubing isometric drawings which are governed by the slope requirements on the drawings.

DUQUESNE LIGHT COMPANY

By _____
J. J. Carey
Vice President

SDH/wjs

cc: Mr. P. Tam, Project Manager
Mr. G. Walton, NRC Resident Inspector

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF)

On this 6th day of January, 1986, before me, a Notary Public in and for said Commonwealth and County, personnally appeared J. J. Carey, 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.

_____
Notary Public