Duquesne Light

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June 4, 1985

United States Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Mr. George W. Knighton, Chief
Licensing Branch 3
Office of Nuclear Reactor Regulation

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50-412
Revised PSB Mechanical Responses

Gentlemen:

This letter provides a revised discussion of lighting and communications originally provided in letter 2NRC-5-056 dated March 27, 1985. As requested in a telephone conversation with PSB on May 13, 1985, this revision provides a brief discussion of the normal power source reliability.

DUQUESNE LIGHT COMPANY

By J. J. Carey
Vice President

GHO/wjs
Attachment

cc: Mr. R. DeYoung, Director (3) (w/a)
Mr. B. K. Singh, Project Manager (w/a)
Mr. G. Walton, NRC Resident Inspector (w/a)
INPO Records Center (w/a)
NRC Document Control Desk (w/a)

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SUBSCRIBED AND SWORN TO BEFORE ME THIS
3rd DAY OF June, 1985.

Anita Elaine Reiter
Notary Public

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

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COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

On this 3rd day of June, 1985, before me, a Notary Public in and for said Commonwealth and County, personally 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.

Anita Elaine Reiter
Notary Public

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

Lighting and Communications

The general bases for the design of the BVPS-2 lighting and communications systems follow the basic design criteria of the BVPS-1 lighting and communication systems. The systems are designed to provide effective, reliable communications between the safe shutdown control stations and other task areas of BVPS-2 during transient, fire, and accident conditions, including the loss of offsite power.

The system description for communications is detailed in FSAR Section 9.5.2. A listing of station areas and the types of communications systems availabe in the various areas is given in the responses to FSAR question 430.56. A discussion of the power supplies is detailed further in the response to FSAR question 430.68. Additional information about the communication systems is given in the responses to FSAR questions 430.57, 430.58, 430.59, and 430.60.

The system description for lighting is detailed in FSAR Section 9.5.3. A listing of station areas and the types of lighting systems available in the various areas is given in the responses to FSAR question 430.61. A discussion of the power supplies is detailed further in the response to FSAR questions 430.63 and 430.66. A discussion of illumination levels is given in the response to FSAR question 430.65. Additional information is given in the responses to FSAR questions 430.62, 430.64, and 430.67.

Defense in depth is provided at BVPS-2 by the various types of communication systems powered by a number of sources which are detailed in FSAR Section 9.5.2. Similarly, defense in depth is provided by the various types of lighting systems powered by a number of differenct sources, which are detailed in FSAR Section 9.5.3. The installation of these integrated lighting and communication systems ensures that BVPS-2 will have effective and reliable lighting and communications during transients, fires, and accident conditions, including the loss of offsite power.

Normal power is provided through the switchyard when the unit is not operating. As shown in Figure 8.1-1 of the FSAR, numerous offsite lines connected to the switchyard provide a high degree of confidence that offsite power will be available. Experience on BVPS-1 has been that the only loss of offsite power resulted from a transformer explosion and power was restored in 17 minutes (see NUREG/CR 3992 Table A.1).

DLC letter 2NRC-5-024 (dated February 13, 1985) provided additional information relating to the non-safety diesel which supplies backup power to some of the lighting and communication systems. The non-safety diesel building conforms to applicable state and national building codes. The power cables from this building to the BVPS-2 plant are routed underground. A 30,000 gallon (7-day) supply, two fuel pumps, and a 270 gallon day tank provide fuel to the non-safety diesel. NUREG-0696 and NUREG-0737 requirements were factored into the design of the system. Many of the attributes were factored into the design of the system. Many of the attributes in Reg. Guide 1.137 are paralleled by ERF/TMI NUREGS.

Maintenance and testing of the nonsafety diesel and batteries will be similar to that performed on comparable safety related diesels and batteries.

The multiple systems, described above and in the referenced documents, together with the diverse, multiple power sources, and the seismic mounting of many components provide a high degree of assurance that sufficient lighting and communications will be available to facilitate safe shutdown even in the unlikely event of a loss of off-site power concurrent with a design basis event.