Duquesne Light

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August 13, 1984

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
Response to Draft SER Open Item No. 53

Gentlemen:

This letter forwards the attached responses to Parts 2 and 3 of the NRC Accident Evaluation Branch's Draft SER Open Item No. 53. Please note that the response to Part 1 of this open item will be provided at a later date.

DUQUESNE LIGHT COMPANY

By E. J. Woolever
E.J. Woolever
Vice President

JDO/wjs
Attachment

cc: Ms. M. Ley, Project Manager (w/a)
Mr. E. A. Licitra, Project Manager (w/a)
Mr. G. Walton, NRC Resident Inspector (w/a)

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

On this 13th day of August, 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

B001
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Draft SER Open Item No. 53 (Section 6.4) - Control Room Habitability:

The staff review of the Beaver Valley control room emergency HVAC system indicates there are several additional open items, not previously identified, that relate to control room operator thyroid doses. The following three areas will have to be addressed by the applicant:

1. Automatic control room pressurization on detection of radiation in the outside air intake is not addressed in the applicable FSAR sections. Radiation detectors in the outside air intakes may be necessary to initiate the control room emergency systems (and maintain control room dose to within GDC 19 guidelines) in the event of design basis accidents occurring outside the containment, such as steamline break, fuel handling accident and small line break outside containment.

2. Flow rates of the bottled air pressurization system, which pressurizes the control room to 1/8 inch w.g. or greater for 1 hour following a design basis accident, are needed. If they are greater or much less than the post-accident air makeup rate of 1,400 CFM (Table 6.4-1 of FSAR) an explanation would have to be submitted by the applicant.

3. Radioactive gases release point E, shown on Figure 6.4-5 of the FSAR appears to be less than 100 feet from the nearest control room air [illegible]. Because of the close proximity of this release point, an evaluation of control room operator doses is needed from the applicant for those design basis accidents that result in radiation to be released from point E.

Until these matters are resolved, control room habitability remains an open item.

Based upon the foregoing, the applicant has not demonstrated that the control room habitability systems will adequately protect the control room operators in accordance with the requirements of NUREG-0737, Item III.D.3.4, and 10CFR Part 50, Appendix A, GDC 19.

Response:

1. The response to Part (1) will be provided at a later date.

2. In order to maintain a minimum pressure of 1/8 inch water gauge in the control room following a design basis accident, an air makeup rate of 800 cfm is required. The BVPS control room emergency bottled air pressurization system can provide a total of 1000 cfm through the five supply lines which carry 200 cfm each. Current design changes being considered for the BVPS-1 emergency pressurization fans may increase the post-accident air makeup rate of these fans from the current 400 cfm to as high as 1000 cfm. This combined BVSP-1 and BVPS-2 air makeup rate of 2000 cfm would present no problems as far as overpressurization of the control room is concerned.

3. Point E is monitored by a BVPS-1 radiation monitor. If a high radiation signal is received, the outflow from Point E is transferred to the BVPS-1 Supplementary Leak Collection and Release System. The flow then passes through a train of HEPA filters before being released to the atmosphere through BVPS-1 elevated release Point D which is located at the top of the BVPS-1 reactor containment building. Therefore, the control room operators are adequately protected against any potential radioactive releases from Point E.