

# Duquesne Light Company

Beaver Valley Power Station  
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JOHN D. SIEBER  
Vice President - Nuclear Group

December 3, 1990

#121 393-0256

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Reference: Beaver Valley Power Station, Unit No. 2  
Docket No. 50-412, License No. NPF-73  
Detailed Control Room Design Review  
Response to NRC Safety Evaluation (TAC 62879) and  
Closure of License Condition 2.C.(8)

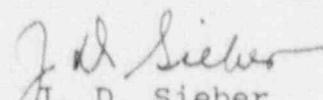
Gentlemen:

This letter is in response to the NRC's letter dated November 6, 1990, which provided the NRC staff's conclusion that the Detailed Control Room Design Review (DCRDR) requirements as specified in Supplement 1 to NUREG-0737 are met for the Beaver Valley Power Station Unit No. 2 (BVPS-2).

As requested in the NRC's letter, Duquesne Light Company is informing the Commission that all DCRDR corrective and other actions have been implemented prior to the start-up following the second BVPS-2 refueling outage. These actions were identified by the License Condition 2.C.(8) included in the Facility Operating License Amendment No. 16 (TAC No. 72001). The attachment to this letter provides a listing of the Human Engineering Discrepancies (HEDs) for which the corrective and other actions were completed according to Amendment No. 16. The attachment also includes the results of the other actions and any additional corrective actions determined feasible to satisfy the HED were also implemented. Consequently, the completion of these actions provides closure for the open issues identified in License Condition 2.C.(8) and the BVPS-2 DCRDR.

If you have any questions in this regard, please contact my office.

Sincerely,

  
J. D. Sieber  
Vice President  
Nuclear Group

Attachment

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cc: Mr. J. Beall, Sr. Resident Inspector  
Mr. T. T. Martin, NRC Region I Administrator  
Mr. A. W. DeAgazio, Project Manager  
INPO Records Clerk

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## ATTACHMENT

BVPS-2 DCRDR  
Implementation of HED Actions

This attachment provides the status of the HEDs identified in Table 1 of the Safety Evaluation attached to Amendment 16 of the BVPS-2 Facility Operating License No. NPF-73. The corrective and other actions for the HEDs were approved for delayed implementation and have been implemented prior to the start-up following the BVPS-2 Second Refueling Outage. The HEDs are listed below and information for evaluative actions approved by Amendment 16 is included to complete closure. All actions were implemented in accordance with Amendment 16 except for the slightly over one month delay to upgrade the postings for radio exclusion areas. This action was completed as documented in our letter dated August 7, 1989.

<u>HED NO.</u>	<u>TITLE</u>
2C1C-5514	Digital Radiation Monitoring System Printout
2MCR-0202	Communications Console/Merge Switch
2MCR-0203	Walkie-Talkie Communications Systems (1)
2MCR-0001	Control Room Noise/Computer Fan Replacement/HVAC Improvements Study (2)
2MCR-0002	Radiation Monitor System/Cabinet Fan Replacement (2)
2MCR-0008	HVAC System Air Flow Adjustments (2)
2MCR-0009	
2MCR-0019	Emergency Lighting
2ES*-0020	
2AB*-0021	
2V**-2128	Annunciator "Dark Board"

(1) The outstanding action for HED 2MCR-0203 was to evaluate the operation of the Walkie-Talkie systems and factor the results into any design changes. (References: Letters to NRC dated March 9, 1989, April 20, 1989 and August 7, 1989). The purpose of the evaluation was to improve Walkie-Talkie communications primarily in areas where concrete shielding to radio transmission is an obstacle, i.e. inside containment. During the evaluation, the following actions were taken:

- Radio exclusion area postings were reviewed and upgrades implemented.
- The Operating Manual Chapter on communications was revised to include the upgraded posting information on the restricted use of Walkie-Talkies.

- Information on radio signal transmission and radio frequency interference (RFI) was reviewed. The information which includes utility experience indicates that RFI is generated for a wide band width from high (20 MHz) through very high and ultra-high frequencies. Each band width has its own particular transmission problems. Therefore, we have determined that RFI cannot be precluded for Walkie-Talkie use especially in areas near instrumentation.
- RFI was demonstrated at three MHz levels for repeater station use inside the BVPS-1 Containment. The repeater station was tied to the Control Room via a telephone pair. The highest (450 MHz) level was tested at three power levels (0.25, .5, and 1.5w). All power levels tested also exhibited RFI with instrumentation. This information was evaluated and determined applicable to the BVPS-2.

Based on the above results, we have determined that design changes to the Walkie-Talkie Systems is not warranted. Therefore, we have closed out further action to overcome the obstacle problems with Walkie-Talkie communications primarily because of the safety concerns related to RFI with instrumentation.

- (2) The outstanding action for HEDs 2MCR-0001 and 0002 was to evaluate the feasibility of the recommended improvements concerning - HVAC equipment and airflow noise and the Radiation Monitoring System (RMS) Cabinet Fan noise. The evaluation was completed and a design change implemented. The design change replaced the RMS cabinet fans, reduced the air velocities in the Control Room duct work and added additional screen openings to the return air ductwork. Please note that the installation of sound absorbing material in the RMS cabinets is not feasible. Therefore, we have returned to the initially recommended corrective action of replacing the cabinet fans. As part of the design change, the air flow adjustments were made to satisfy HEDs 2 MCR-0008 and 0009. These actions resulted in a reduction from 80 dB to 67 dB at the RMS cabinets and readings between the Vertical Board and Bench Board and in front of the Bench Board under 65 dB.