



# Duquesne Light

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September 2, 1982

Director of Nuclear Reactor Regulation  
United States Nuclear Regulatory Commission  
Attn: Mr. Steven A. Varga, Chief  
Operating Reactors Branch No. 1  
Division of Licensing  
Washington, DC 20555

Reference: Beaver Valley Power Station, Unit No. 1  
Docket No. 50-334, License No. DPR-66  
N-1 Loop Instrumentation

Gentlemen:

During a site visit on August 19, 1982, Mr. Richard Eckenrode of your staff requested K. D. Grada of Duquesne Light Company to identify control room instrumentation and annunciators that would be affected during operation with a reactor coolant loop removed from service.

The following is a summary of the items identified at that time:

## Instrumentation

Reactor Coolant Flow (3 indicators)  
RCS Loop  $\Delta T$  (2 indicators)  
Wide Range Cold Leg Temperature (1 pen on 3 pen recorder)  
Wide Range Hot Leg Temperature (1 pen on 3 pen recorder)  
Wide Range Steam Generator Level (1 pen on 3 pen recorder)  
Narrow Range Steam Generator Level (3 indicators)  
Steam Generator Pressure (5 indicators)  
Feedwater Flow (2 indicators)  
RCS Loop Tavg (2 indicators)  
Steam Flow (2 indicators)  
Overtemperature  $\Delta T$  (1 indicator)  
Overpower  $\Delta T$  (1 indicator)  
Reactor Coolant Pump Ammeter (1 indicator)  
Reactor Coolant Pump Cooling, Seal Instruments (8 indicators, 1 pen on each of (2) 3 pen recorders)  
Steam Flow, Feedflow, Level Recorder (3 pen recorder)

These instruments would read downscale in the isolated loop with the exception of steam generator and reactor coolant pump instrumentation, which would depend on the nature of the work in the loop.

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Annunciators

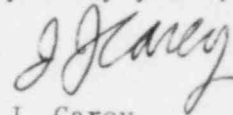
Since many of the annunciators share common inputs from all three loops, the inputs from the out of service loop would have to be defeated to maintain the operability of the alarm function.

For cases where a separate annunciator is provided for status monitoring on each loop or loop component, the annunciator itself would be identified as being out of service. This would make it identifiable to the operator and avoid confusion on plant status in the event of an accident.

Approximately 27 annunciators with common inputs from all three loops and 12 additional annunciators with independent inputs would be affected. The number would vary on several factors, eg: steam generator layup status, coolant pump status and the nature of the work being performed on the isolated loop. The method of defeating or identifying these annunciators would have to be part of the procedure prepared for the evolution.

In addition to these annunciators, approximately 36 bistable status lights could be affected in the inoperative loop, this would depend on the type of work to be performed on the out of service loop. The capability to bypass protection system inputs from the inoperative loop would be necessary during performance of any surveillance test which tripped bistables to preclude a reactor trip or safeguards actuation due to completing a 2 out of 3 logic matrix.

Very truly yours,



J. J. Carey  
Vice President, Nuclear

cc: Mr. W. M. Troskoski, Resident Inspector  
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