



Duquesne Light

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July 2, 1981

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
NUREG-0654, Appendix No. 2, Revision 1

Gentlemen:

In accordance with NUREG 0654, we are required to submit a functional description of upgraded meteorological capabilities and a schedule for installation and operation of the meteorological system.

We have conducted a study to evaluate the data being generated by our existing onsite 500' meteorological tower to determine if the data being obtained from that tower is representative of the meteorological conditions of the EPZ. As you may be aware, the EPZ associated with the Beaver Valley site is comprised of complex terrain consisting of a river valley enclosed by moderately high, steep cliffs and hilly conditions surrounding the river valley. The complexity of the EPZ requires that we perform an in-depth evaluation of sources of meteorological data available to us. This evaluation was conducted by reviewing meteorological data from our onsite tower and comparing it to data which has been obtained from the Shippingport Atomic Power Station, the Greater Pittsburgh Airport, Ohio Edison (Sammis Microwave Tower) and Penn Power (Mansfield Microwave and Fairview Towers).

As a result of this study, we have concluded that there is insufficient data available to establish that the existing meteorological tower accurately reflects meteorological conditions at the ten (10) meter level within the river valley. Therefore, we are pursuing the following courses of action to determine the appropriate meteorological measurement equipment needed to satisfy the requirements of NUREG 0654.

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1. We plan to erect two (2) 10-meter temporary towers to be operated concurrently on as many as six (6) separate sites for the purpose of choosing the best alternate location for a second permanent meteorological tower. Each of the six (6) temporary sites must be evaluated prior to selection to prevent interference by topographical features or man-made structures with the performance of the ten (10) meter level measuring devices. Collection of data from the sites must occur during the months of July, August and September to properly model the most severe meteorological conditions which will occur at the site. In addition, a lease with options to purchase must be negotiated for each temporary site to be utilized as well as an evaluation of the availability of appropriate communications and power supply facilities. We expect to complete this phase of the plan by September, 1982.
2. The data collected from the six (6) temporary sites must be evaluated to determine the optimum location for the second permanent meteorological tower. This phase will be completed by November, 1982.
3. The second permanent meteorological tower will be designed and installed by May, 1983.
4. Plans are proceeding for the development of a Class A meteorological model using manual data entry as a short-term supplement to our manual dose tracking procedures. This interim Class A model will be installed on an existing ND 6650 computer using a color-graphics terminal.
5. Software for a final real time, automated, Class A model is currently being pursued and is expected to be complete by August, 1983.
6. We presently estimate that we will be able to implement the entire system, including an operating Class A model, by December 1983.

If you have any questions regarding this response, please contact me at my office.



J. J. Carey
Vice President, Nuclear

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