



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

May 7, 1987

Docket Nos. 50-334  
50-412

Mr. J. J. Carey, Senior Vice President  
Duquesne Light Company  
Nuclear Group  
Post Office Box 4  
Shippingport, PA 15077

Dear Mr. Carey:

Subject: BEAVER VALLEY UNITS 1 & 2 - RESCIND PREVIOUS STAFF POSITION ON  
USE OF RM-50-2 (TAC 63996)

By letter dated February 24, 1987, we transmitted to you our position on the use of the Annex (RM-50-2) to 10 CFR 50 Appendix I limits for radiological release. You responded by sending a letter dated March 5, 1987 to request a scheduler exemption from implementing the requirements of RM-50-2.

We have reevaluated the applicability of Part 50, Appendix I requirements to the case of Beaver Valley Power Station and conclude that the circumstances of Unit 2 are such that: (1) it is not necessary for you to perform a cost/benefit analysis of additional effluent radioactivity control equipment, and (2) the requirements of Appendix I (rather than the limits of RM-50-2) apply to each unit individually, and thus specifically to Unit 2. Details may be found in the enclosed safety evaluation dated April 28, 1987. We rescind the position stated in our February 24, 1987 letter.

Therefore, no exemption will be needed and no additional action will be taken on the subject matter.

Sincerely,

Peter S. Tam, Project Manager  
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Enclosure:  
As stated

cc w/enclosure:  
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OFFICE OF NUCLEAR REACTOR REGULATION

SAFETY EVALUATION REPORT

BEAVER VALLEY POWER STATION, UNIT 2

SCHEDULAR EXEMPTION RE: REQUIREMENTS OF RM-50-2

Background

Beaver Valley Power Station (BVPS) consists of two PWRs, Units 1 and 2 (Docket Nos. 50-334 and 50-412) located in Pennsylvania on the bank of the Ohio River, near the border with the State of Ohio. The Shippingport Atomic Power Station, which is being decommissioned, is on the same site. The construction permit for Unit 1 was issued June 26, 1970 and it began commercial operation October 1, 1976. The construction permit for Unit 2 was issued May 3, 1974.

The licensee, Duquesne Light Company, has submitted in its FSAR for BVPS-2 designs for liquid and gaseous radioactive waste treatment systems for which the design objectives were to meet the requirements in the Concluding Statement of Position of the Regulatory Staff in Docket RM-50-2 which are reproduced in the Annex to Appendix I to 10 CFR Part 50. By so doing, and because the licensee's application for a construction permit for BVPS-2 was docketed in October 1972 and therefore after January 1, 1971 and prior to June 4, 1976, the licensee met the specifications in a provision of Section II.D of Appendix I which provides an alternative from performing a cost/benefit analysis (specified in that Section II.D) to show that its radioactive effluent treatment systems

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include all items of reasonably demonstrated treatment technology which can, for a favorable cost/benefit ratio, effect reductions in dose to a surrounding population. The licensee chose to rely on the alternative provision in Section II.D and designed to meet the Annex.

The issues being addressed by this SER are (1) whether the licensee, by choosing this course has placed himself in the position of being required to operate BVPS with the objective (among others) of maintaining radioactive effluent releases within the limitations of RM-50-2 in the Annex to Appendix I rather than those of Appendix I itself for BVPS-2, or, alternatively, to submit for BVPS-2 the cost/benefit analysis specified in Section II.D of Appendix I, and (2) whether the licensee, as a result of preparing to operate BVPS-2 to meet the effluent limitations specified in Appendix I itself (including preparing its Radiological Effluent Technical Specifications (RETS) and Offsite Dose Calculation Manual (ODCM) with this objective) and failing to submit the Section II.D cost/benefit analysis, needs a schedular exemption to its Operating License to permit temporary operation under Appendix I pending remediation.

By a letter of February 24, 1987, a staff position was communicated to the licensee which indicated that the licensee is required to operate BVPS to the requirements of RM-50-2, or to submit the cost/benefit analysis specified in Section II.D, or to augment the containment vacuum pump exhaust filter system, or to obtain an exemption "lifting the requirement for fulfilling Paragraph D of Appendix I to 10 CFR Part 50." The licensee responded in a letter dated March 5, 1987, requesting a schedular exemption "from the requirements of

RM-50-2" pursuant to 10 CFR 50.12(a). The letter asked that the exemption remain in effect until six months after the issuance of a full-power license for Unit 2.

### Evaluation

The past actions of the licensee, i.e., FSAR design to meet the requirements of RM-50-2 and docketing of the application for the construction permit for BVPS-2 on October 20, 1972, clearly meet the requirements of Section II.D of Appendix I which provides an alternative from submitting a cost/benefit analysis specified in Section II.D. This point appears to be generally acknowledged.

It can be argued that the licensee has, in a sense sometimes employed in NRC licensing activities, by submitting in the FSAR systems designed to operate in accordance with the requirements of RM-50-2, committed to such operation and, therefore, should be held to that commitment. However, demonstration of compliance with Section II.D or, in the alternative, with the Annex RM-50-2 is not a commitment to operate; it is a demonstration concerning how much equipment is to be contained in the design. In the case of BVPS, the specifics of 10 CFR Part 50 and its Appendix I, and the history of the development of Appendix I affect the requirements to be imposed. Foremost is the fact that there is no specific basis in the regulations for imposing the limits in RM-50-2 as requirements for the operation of a nuclear power plant. The quantitative requirements of Appendix I itself stand alone, and no specific alternatives are set forth as applicable guidance. In Section V.A, Appendix I clearly specifies that its guides for limiting conditions for operation shall be applicable in any case in which an application for a permit to construct

a light-water-cooled nuclear power reactor was filed on or after January 2, 1971. Only for reactors for which the application was filed prior to January 2, 1971 is there specific provision for the use of other values. The application for the permit to construct BVPS-2 was filed on September 25, 1972 and therefore the guides for limiting conditions for operation set forth in Appendix I are applicable to BVPS-2. With regard to issue (1), therefore, the licensee is correct in preparing (Technical Specifications, an Offsite Dose Calculation Manual, and training) for operation of BVPS-2 to meet the guides set forth in Appendix I itself.

With regard to issue (2), because the licensee has proceeded along the correct course, there is no need for remedial action by the licensee, and therefore, the licensee should have no need of a scheduler exemption in this matter.

Further provision was made in Appendix I for the case of plants for which applications for construction permits had been filed prior to January 2, 1971; for many of these (with the shorter construction periods of those years, e.g., BVPS-1), the plant construction was either complete or nearly so, and thus backfitting was necessary to achieve ALARA releases. Appendix I permitted such plants to be treated on a case-by-case basis with regard to the release levels to be achieved. Beaver Valley Unit 1 is a unit that came under this provision.

In summary, the provision in Section II.D referencing RM-50-2 recognized the concurrent development of the plant designs and the quantitative ALARA guidance so as to avoid unnecessarily penalizing certain licensees, but was not intended to impose upon any nuclear power plant the requirements of RM-50-2. Thus, although in a sense sometimes employed in NRC's licensing procedures, the licensee, by designing to meet the requirements of RM-50-2 could be considered to have committed to operate to those requirements, there is no requirement for the licensee to operate in conformance with RM-50-2. The requirements of Appendix I should govern.

Principal Contributors

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Dated

April 28, 1987