September 1, 1993

Docket No. 50-334

Mr. J. D. Sieber, Senior Vice President
and Chief Nuclear Officer
Nuclear Power Division
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077-0004

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Dear Mr. Sieber:

SUBJECT: BEAVER VALLEY POWER STATION, UNIT 1 - FEDERAL REGISTER NOTICE RELATED TO TECHNICAL SPECIFICATION CHANGE REQUEST NO. 202 (TAC M84673)

The Commission has forwarded the enclosed "Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Signifcant Hazards Consideration Determination and Opportunity for Hearing" to the Office of the Federal Register for publication.

The notice relates to your November 2, 1992, application, as supplemented February 23, June 28, and July 9, 1993, and two additional supplements dated August 16, 1993, to amend the Technical Specifications to increase the storage capacity of the spent fuel pool at the Beaver Valley Power Station, Unit No. 1. Earlier, on February 4, 1993, a notice was published in the FEDERAL REGISTER (58 FR 7161) which addressed your November 2, 1992, application. However, the February 2 and June 28, 1993, supplements changed the amendment request with regard to the storage of low burnup fuel in peripheral cells in the spent fuel pool. Therefore, this notice addresses those changes. The July 9 and August 16, 1993, supplements provided clarification only and did not change the amendment proposal.

Sincerely,

Original signed by:
Gordon E. Edison, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

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cc w/enclosure:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 1, 1993

Docket No. 50-334

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and Chief Nuclear Officer
Nuclear Power Division
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077-0004

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Gordon E. Edison, Senior Project Manager
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Enclosure:
As stated

cc w/enclosure:
See next page

Mr. J. D. Sieber
Duquesne Light Company

Beaver Valley Power Station
Units 1 & 2

cc:

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Enclosure

UNITED STATES NUCLEAR REGULATORY COMMISSION

DUQUESNE LIGHT COMPANY, ET AL

DOCKET NO. 50-334

NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-66 issued to Duquesne Light Company (the licensee) for operation of the Beaver Valley Power Station, Unit 1 located in Shippingport, Pennsylvania.

The original proposed amendment, dated November 2, 1992, would modify the Appendix A Technical Specifications (TSs) to allow for increasing the number of spent fuel assemblies that may be stored in the spent fuel pool. A proposed determination of no significant hazards was published in the FEDERAL REGISTER (58 FR 7161) on February 4, 1993. However, changes to the proposed amendment were made in supplements dated February 23 and June 28, 1993. This notice addresses the changes proposed in the supplements.

Three other supplements to the amendment have been submitted. These supplements, dated July 9, August 16, and August 16, 1993, provided clarifying information only and did not change the amendment request. Therefore, an evaluation of no significant hazards for those supplements was not made.

The original proposal would have allowed a separate calculation to establish the admissibility of storing low burnup fuel in Region 2 peripheral cells on a case-by-case basis. However, in the two supplements proposing changes, the licensee has proposed to divide the spent fuel pool into three

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regions instead of two. The third region would consist of certain peripheral cells of former Region 2 requiring a separate qualification for fuel storage. A table of qualifications (Table 3.9-2) has been added to the TS instead of performing a case-by-case criticality calculation at a later time. The table specifies fuel burnup and initial U235 enrichment which qualifies for storage in Region 3. The licensee has also proposed clarifications in the TS Bases to reflect the third storage region, and to clarify the uncertainty in Boron concentration in the pool.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration. The licensee's analysis are provided below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   This proposed change revises portions of our original submittal dated November 2, 1992 based on the NRC recommended changes issued by letter dated January 25, 1993. The NRC stated that they did not agree with our proposed changes to Specification 3.9.14.c, Surveillance Requirement 4.9.14.1 and Bases 3/4.9.14 that would

have allowed a separate calculation to establish the admissibility of storing low burnup fuel in a Region 2 peripheral cell on a case-by-case basis. The NRC feels these calculations should be done now to develop a separate initial enrichment versus burnup table that would be included in the technical specifications for the peripheral cells.

The vendor has performed the required calculations and developed enrichment versus burnup data for a new Table 3.9-2 that provides the limitations necessary for storing fuel in the Region 2 peripheral cells, to be called Region 3. The results of the calculations performed with the KENO-5a code for Region 3, using a conservative 30 centimeter water reflector, show that those cells can safely accommodate fuel with an initial enrichment of 5.0 w/o which have a burnup of 25,000 MWD/MTU. The KENO-5a calculations were made with the Region 3 cells containing fuel enriched to 2.348 w/o (equivalent to 5.0 w/o enriched fuel with a burnup of 25,000 MWD/MTU) and the remainder of the rack filled with the maximum permissible enrichment for Region 2 fuel (1.694 w/o enriched, which is equivalent to 5.0 w/o enriched fuel with a burnup of 40,000 MWD/MTU). For this condition, the calculated reactivity was 0.9119 $\pm$ 0.0010 (with a 95%/95% probability/confidence level, bias corrected), and with uncertainties and the temperature correction to 4^0C added, the maximum K_{eff} is 0.946. Therefore, as a result of the neutron leakage from fuel in the Region 3 cells, these cells can safely accommodate fuel with an initial enrichment of 5.0 which have a burnup of 25,000 MWD/MTU. The KENO-5a code was the principal method of analysis along the periphery of the storage racks, assuming a 30 cm water reflector. The CASMO-3 code (with the restart option) was used to define the equivalent enrichment for fuel with an initial enrichment of 5 w/o burned to 25,000 MWD/MTU evaluated in the storage rack cell configuration at a reference temperature of 4^0C. Once the reactivity for 5.0 w/o enriched fuel at 25,000 MWD/MTU had been established, CASMO burnup and restart calculations at other enrichments were made and interpolated for the same reactivity. This data is tabulated in Table 3.9-2 and defines the acceptable initial enrichment versus burnup limits for storing fuel in the Region 2 peripheral cells. The maximum effective multiplication factor for fuel corresponding to the limits defined in Table 3.9-2 is less than the reference multiplication factor of 0.946 including uncertainties and allowances. Fuel assemblies that satisfy the criteria provided in Table 3.9-2 may be safely stored in the Region 3 cells with assurance that the effective multiplication factor will be maintained within the regulatory limit of 0.95. Therefore, this proposed revision is safe and will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The NRC also recommended that we reword Bases 3/4.9.14 concerning our proposed change describing the spent fuel pool boron concentration uncertainty. The proposed change stated that the 1050 ppm boron concentration includes a 650 ppm uncertainty whereas it is actually composed of 400 ppm for the accident analysis, 50 ppm for uncertainty and 600 ppm for margin. As a result, this portion of the Bases has been revised to clarify the uncertainty discussion. This revision provides an editorial clarification which does not change the intent of the Bases discussion, therefore, this revision will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The NRC further recommended that we also reword Bases 3/4.9.14 by changing the position in the sentence where "of 5.0 w/o" is added. Moving "of 5.0 w/o" to follow "nominal region average enrichment" is an editorial change and is consistent with the intent of the sentence, therefore, this revision will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Additional changes also consolidate the first two paragraphs on page B 3/4 9-4 and modify the last two paragraphs to incorporate a description of Region 3 including the linear equation for qualification of fuel for storage in this region. Applicable calculations were performed using the same methodology used in the high density rack design to ensure no criticality concerns exist for fuel storage in Region 3. Therefore, this proposed revision is safe and will not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed revisions do not affect the other portions of the original change request. Table 3.9-2 was developed to provide an alternate means of qualifying fuel assemblies for storage in the Region 3 cells. The methodology used to develop Table 3.9-2 was similar to that used for Table 3.9-1 and previously derived for a number of comparable plants. Tables 3.9-1 and 3.9-2 ensure the required guidance and limitations are available to provide for the safe storage of fuel in both Region 2 and Region 3 of the spent fuel pool. These revisions are based on NRC review of our original submittal and will improve the technical specification requirements in accordance with NRC policy while maintaining the intent of the changes. Therefore, these changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

   Incorporating Table 3.9-2 provides an alternate means of qualifying fuel assemblies for storage in Region 2 peripheral cells. The maximum effective multiplication factor for these cells is maintained less than the reference effective multiplication factor including uncertainties and allowances. This change does not affect the margin of safety since these changes adequately control storage of fuel assemblies in the spent fuel pool and do not affect any other system or component that might degrade the safety of the plant. The editorial changes to the Bases are in accordance with the NRC recommendations and are provided to improve the clarity of the Bases discussion. Therefore, the changes will not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on our review of the licensee's analysis, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this

action, it will publish in the FEDERAL REGISTER a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Rules Review and Directives Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By October 8, 1993 , the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public

document room located at the B. F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, Pennsylvania 15001. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order. As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are

sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and

make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, by the above date. Where petitions are filed during the last 10 days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 248-5100 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to Dr. Walter R. Butler: petitioner's name and telephone number, date petition was mailed, plant name, and publication date and page number of this FEDERAL REGISTER notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and at the local public document room located at the B. F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, Pennsylvania 15001, and to Jay E. Silberg, Esquire, Shaw, Pittman, Potts & Trowbridge, 2300 N Street, NW., Washington, DC 20037, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be

entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

The Commission hereby provides notice that this is a proceeding on an application for a license amendment falling within the scope of section 134 of the Nuclear Waste Policy Act of 1982 (NWPA), 42 U.S.C. 10154. Under section 134 of the NWPA, the Commission, at the request of any party to the proceeding, must use hybrid hearing procedures with respect to "any matter which the Commission determines to be in controversy among the parties." The hybrid procedures in section 134 provide for oral argument on matters in controversy, proceded by discovery under the Commission's rules, and the designation, following argument, of only those factual issues that involve a genuine and substantial dispute, together with any remaining questions of law, to be resolved in an adjudicatory hearing. Actual adjudicatory hearings are to be held on only those issues found to meet the criteria of section 134 and set for hearing after oral argument.

The Commission's rules implementing section 134 of the NWPA are found in 10 CFR Part 2, Subpart K, "Hybrid Hearing Procedures for Expansion of Spent Nuclear Fuel Storage Capactiy at Civilian Nuclear Power Reactors" (published at 50 FR 41670, October 15, 1985) to 10 CFR 2.1101 et seq. Under those rules, any party to the proceeding may invoke the hybrid hearing procedures by filing with the presiding officer a written request for oral argument under 10 CFR 2.1109. To be timely, the request must be filed within 10 days of an order granting a request for a hearing or petition to intervene. (As outlined

above, the Commission's rules in 10 CFR Part 2, Subpart G, and 2.714 in particular, continue to govern the filing of requests for a hearing or petitions to intervene, as well as the admission of contentions.) The presiding officer shall grant a timely request for oral argument. The presiding officer may grant an untimely request for oral argument only upon showing of good cause by the requesting party for the failure to file on time and after providing the other parties an opportunity to respond to the untimely request. If the presiding officer grants a request for oral argument, any hearing held on the application shall be conducted in accordance with the hybrid hearing procedures. In essence, these procedures limit the time available for discovery and require that an oral argument be held to determine whether any contentions must be resolved in adjudicatory hearing. If no party to the proceedings requests oral argument, or if all untimely requests for oral argument are denied, then the usual procedures in 10 CFR Part 2, Subpart G, apply.

For further details with respect to this action, see the application for amendment dated November 2, 1992, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at

the B. F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, Pennsylvania 15001.

Dated at Rockville, Maryland, this 1st day of September 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

G E Edison

Gordon E. Edison, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation