Duquesne Light Company Beaver Valley Power Station
P.O. Box 4
Shippingport, PA 15077-0004

SUSHIL C. JAIN
Senior Vice President
Nuclear Services
Nuclear Power Division

(412) 393-5512
Fax (724) 643-8069

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L-98-203

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
License Amendment Request No. 134

Pursuant to 10 CFR 50.90, Duquesne Light Company requests an amendment to the above license. The proposed change would incorporate a temporary license condition that would extend the technical specification surveillance interval, specified in Surveillance Requirement 4.8.1.1.1.b, to the first entry into Mode 4 following the Cycle 7 refueling outage but no later than May 1, 1999.

The proposed change is presented in Attachment A. The safety analysis (including the no significant hazards evaluation) is presented in Attachment B.

This change has been reviewed by the Beaver Valley review committees. The change was determined to be safe and does not involve a significant hazard consideration as defined in 10 CFR 50.92 based on the attached safety analysis. An implementation period of up to 60 days is requested following the effective date of this amendment. Approval of this change is requested by December 31, 1998.

Sincerely,

Sushil C. Jain

c: Mr. D. S. Brinkman, Sr. Project Manager
Mr. D. M. Kern, Sr. Resident Inspector
Mr. H. J. Miller, NRC Region I Administrator
Mr. W. P. Dornsife, Director BRP/DEP
Mr. M. P. Murphy (BRP/DEP)

AFFIDAVIT FOR APPLICATION

OF AMENDMENT

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF BEAVER)

Subject: Beaver Valley Power Station, Unit No. 2
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Before me, the undersigned notary public, in and for the County and Commonwealth aforesaid, this day personally appeared Sushil C. Jain, to me known, who being duly sworn according to law, deposes and says that he is Senior Vice President, Nuclear Services of the Nuclear Power Division, Duquesne Light Company, he is duly authorized to execute and file the foregoing submittal on behalf of said Company, and the statements set forth in the submittal are true and correct to the best of his knowledge, information and belief.

Sushil C. Jain

Subscribed and sworn to before me

on this 14th day of October, 1998

Tracey A Baczek

Notary Public

Notarial Seal
Tracey A. Baczek, Notary Public
Shippingport Boro, Beaver County
My Commission Expires Aug. 16, 2001
Member, Pennsylvania Association of Notaries

ATTACHMENT A

Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 134

Add License Condition 2.C(12) as follows:

(12) Surveillance Interval Extension
The surveillance interval for the surveillance requirements identified in the licensee's request for surveillance interval extension dated October 16, 1998, shall be extended to the first entry into Mode 4 following the Cycle 7 refueling outage but no later than May 1, 1999.

ATTACHMENT B

Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 134
CYCLE 7 SURVEILLANCE INTERVAL EXTENSION

A. DESCRIPTION OF AMENDMENT REQUEST

The proposed amendment would extend the surveillance interval for Surveillance Requirement (SR) 4.8.1.1.1.b for the automatic transfer requirement only. This requirement demonstrates the ability to automatically transfer the unit power supply from the unit circuit to the system circuit. This extension request includes the reference to the automatic transfer requirement of SR 4.8.1.1.1.b in SR 4.8.1.2. The surveillance interval would be extended to the first entry into Mode 4 following the 7th (2R7) refueling outage but no later than May 1, 1999, by adding License Condition 2.C(12).

B. DESIGN BASES

The normal source of power for the plant auxiliaries is the main generator, through two unit station service transformers. The high voltage windings of these transformers are connected to the main generator output bus leads through isolated phase bus ducts. The two low voltage windings are connected to four separate 4 kV normal busses, two of which provide power for the two redundant 4 kV emergency busses.

During plant startup and shutdown and plant outages, the 4 kV normal and emergency busses normally receive power from two 13[illegible] kV system station service transformers that are fed by the two separate 138 kV offsite power circuits. In addition to being the source of power for plant startup or shutdown and plant outages, the system station service transformers are made available, via an automatic bus transfer scheme, in the event of loss of the normal power source (unit station service transformers) to ensure continuous power to both the Class 1E and non-Class 1E systems.

C. JUSTIFICATION

The proposed change is temporary and allows a one time extension of the surveillance interval for the automatic transfer requirement of SR 4.8.1.1.1.b and reference to the automatic transfer requirement of SR 4.8.1.1.1.b in SR 4.8.1.2 to the first entry into Mode 4 following 2R7 but no later than May 1, 1999.

Cycle 7 was designed for a cycle length of 466 effective full power days. This is approximately equal to 17 months of full power operation with a 90% capacity factor. Cycle 7 began in January 1997, and operated until the plant was shut down in December 1997. Cycle 7 was initially expected to end in the spring of 1998; however, due to an extended outage, plant operation did not continue until September 1998. As a result of

the extended outage, Cycle 7 is expected to end and the 2R7 refueling outage is expected to begin the last week of February 1999.

The surveillance interval identified in SR 4.8.1.1.1.b requires automatic transfer of the unit power supply from the unit circuit to the system circuit on an 18 month surveillance interval and is due, including the 25% extension permitted by SR 4.0.2, no later than January 30, 1999. The plant is currently operating in Cycle 7 which is expected to end in the last week in February 1999.

The automatic bus transfer feature is normally only actuated during the surveillance test; however, the associated transfer breakers may be manually operated during plant operation for large load starts. This verifies that the breakers relied upon for the transfer of power are functional and provides an opportunity to identify potential equipment degradation. The manual transfer requirement of SR 4.8.1.1.1.b also demonstrates that the electrical breakers which transfer power from the unit power supply to the system circuit supply are functional. The manual transfer surveillance test provides additional assurance that the breakers, which are also associated with the automatic transfer function, will actuate when required. The manual transfer requirement of SR 4.8.1.1.1.b will continue to be completed within the required surveillance interval. This portion of the surveillance requirement can be completed during power operation with minimal risk to plant operation. The availability of power from the system circuit to the station busses is verified prior to disconnecting the unit power supply. Therefore, the manual transfer test should not result in the loss of power to the station busses for any period of time.

This extension is requested to enable the automatic transfer test to be scheduled to be performed either in Mode 1 as the plant is being shut down for a refueling outage or during station backfeed during plant shutdown. The plant must be in either Mode 1 supplying power through the unit station service transformers or on station backfeed through the main unit transformer to test the automatic transfer to the system station service transformers. The currently planned method of testing (the plant is shut down on station backfeed) reduces the operational impact on the plant that may result from a loss of large loads. During the required surveillance the A and D busses are de-energized for a finite period of time, then re-energized to complete the transfer. A reactor coolant pump or a main feed pump (i.e., large load) trip during the test could result in a reactor trip.

Station backfeed through the main unit transformer is typically established during refueling outages to permit maintenance activities on electrical equipment, such as the system station service transformers, without interrupting power to the station electrical busses. The process of establishing station backfeed

is time consuming due to the amount of clearance activities required in order to ensure personnel safety for the personnel performing the required work activities. Station backfeed was not established during the extended plant outage which began in December 1997. Therefore, the plant's electrical configuration did not permit the performance of the automatic transfer requirement contained in SR 4.8.1.1.1.b. The unit station service transformers were not energized during this time period. Consequently, the requirements for demonstrating automatic power transfer from the unit to the system power supply were not accomplished during the extended plant outage.

The original 1997/1998 outage assessment of which surveillance requirements would have to be performed prior to plant restart was based on the 2R7 refueling outage beginning in the fall of 1998. As such, the automatic transfer requirement of SR 4.8.1.1.1.b did not fall into this category since the maximum extension to the due date required the test to be performed by January 30, 1999. However, due to the continuation of the outage past the original expected completion date, the 2R7 outage date was moved to the end of February 1999. This change resulted in the automatic transfer surveillance being required to be performed prior to the start of the 2R7 refueling outage. At that point in time during the extended plant outage, the performance of the automatic transfer requirement was determined to have the potential to delay plant restart due to the amount of time required to establish and restore from station backfeed. Therefore, this circumstance resulted in the need to develop this request for an extension to the required surveillance interval.

D. SAFETY ANALYSIS

Technical Specification 4.0.2 is an administrative control which ensures that surveillance tests are performed periodically and defines a reasonable extension period for such testing. The basis for this specification describes the surveillance requirements as "sufficient to ensure that the reliability associated with the surveillance activity is not significantly degraded beyond that obtained from the nominal specified interval." Based on engineering judgment, the margin of safety derived from the required surveillance interval may be slightly reduced by extending the interval. However, because the allowable surveillance interval extension is limited to the first entry into Mode 4 following the 2R7 refueling outage but no later than May 1, 1999, the Duquesne Light Company (DLC) has concluded that the reliability defined by the normal surveillance interval will not be significantly reduced by the extension. This conclusion is based on previous surveillance tests which have adequately demonstrated that the system, which automatically transfers power from the unit to the system circuit supply, is reliable.

The proposed amendment would allow a one time extension of the surveillance interval for the automatic transfer requirement of SR 4.8.1.1.1.b and reference to the automatic transfer requirement of SR 4.8.1.1.1.b in SR 4.8.1.2 from January 30, 1999, to the first entry into Mode 4 following 2R7 but no later than May 1, 1999. This extension is requested due to a long outage during Cycle 7. This surveillance was not performed during the extended plant outage since the plant must be in Mode 1 to perform the test or on station backfeed when the plant is shut down. The surveillance requires the automatic transfer of the 4 kv busses A and D from onsite to offsite power. During plant operation, if one of these busses fails during the test, large loads may be lost and result in a reactor trip. In addition, station backfeed was not established during the extended plant outage which began in December 1997. The potential for plant challenges exceeds the value in demonstrating that the automatic transfer function is operating correctly in accordance with the current surveillance interval. The manual transfer requirement of SR 4.8.1.1.1.b demonstrates that the breakers relied upon for the transfer of power are functional and provides an opportunity to identify potential equipment degradation. The manual transfer requirement of SR 4.8.1.1.1.b will continue to be completed within the required surveillance interval. Previous surveillance tests have adequately demonstrated that the system, which automatically transfers power from the unit to the system circuit supply, is reliable. Therefore, DLC has concluded that the reliability of the automatic transfer system will not be significantly degraded by this proposed surveillance interval extension.

This change is consistent with short term changes granted by the NRC for other plants to extend various 18 month surveillance intervals to a refueling outage. Following plant restart from 2R7, the plant will continue to comply with the 18 month surveillance intervals for future operating cycles. The proposed change does not affect the UFSAR accident analyses since a loss of offsite power is assumed during a design basis accident. In addition, this change is of short duration and only applies until plant restart from the 2R7 refueling outage but no later than May 1, 1999. Therefore, based on the above, this change has been determined to be safe and will not affect the safety of the plant.

E. NO SIGNIFICANT HAZARDS EVALUATION

The no significant hazard considerations involved with the proposed amendment have been evaluated, focusing on the three standards set forth in 10 CFR 50.92(c) as quoted below:

> The Commission may make a final determination, pursuant to the procedures in paragraph 50.91, that a proposed amendment to an operating license for a facility licensed under paragraph 50.21(b) or paragraph 50.22 or for a testing

facility involves no significant hazards consideration, if 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.

The following evaluation is provided for the no significant hazards consideration standards.

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

   The proposed change is temporary and allows a one time extension of the automatic transfer function 18 month surveillance requirement specified in Surveillance Requirement (SR) 4.8.1.1.1.b. This surveillance requirement is also referenced in SR 4.8.1.2. The proposed surveillance interval extension will not cause a significant reduction in system reliability nor affect the ability of a system to perform its design function. The proposed change does not affect the UFSAR accident analyses since a loss of offsite power is assumed during a design basis accident. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Extending the surveillance interval for the performance of specific testing will not create the possibility of any new or different kind of accidents. No change is required to any system configurations, plant equipment or analyses. The UFSAR accident analyses assume a loss of offsite power; therefore, loss of the automatic bus transfer feature will not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Extending the surveillance interval for the automatic transfer function will not impact any plant safety analyses since the UFSAR accident analyses assume the loss of offsite power. The safety limits assumed in the accident analyses and the

design function of the equipment required to mitigate the consequences of any postulated accidents will not be changed since only the 18 month surveillance test interval is being extended. Based on engineering judgment, extending the surveillance test interval for the performance of this specific test could slightly reduce the margin of safety derived from the required surveillances. However, past experience has shown that the system which automatically transfers power from the unit to the system circuit supply is reliable. The manual transfer requirement of SR 4.8.1.1.1.b demonstrates that the breakers relied upon for the transfer of power are functional and provides an opportunity to identify potential equipment degradation. The manual transfer requirement of SR 4.8.1.1.1.b will continue to be completed within the required surveillance interval. Therefore, the plant will be maintained within the analyzed limits and the proposed extension will not significantly reduce the margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the considerations expressed above, it is concluded that the activities associated with this license amendment request satisfy the requirements of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.

G. ENVIRONMENTAL CONSIDERATION

This license amendment request changes a requirement with respect to a facility component located within the restricted area as defined in 10 CFR Part 20. It has been determined that this license amendment request involves no significant increase in the amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. This license amendment request changes a surveillance requirement with respect to a facility component located within the restricted area; however, the category of this licensing action does not individually or cumulatively have a significant effect on the human environment. Accordingly, this license amendment request meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this license amendment request.

H. UFSAR CHANGES

No UFSAR changes are required.