Duquesne Light Company
Beaver Valley Power Station
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JOHN D. SIEBER
Vice President - Nuclear Group

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June 16, 1989

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Reference: Beaver Valley Power Station, Unit No. 1 and No. 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
NRC Bulletin 89-01

Gentlemen:

Attached is the Duquesne Light Company response to NRC Bulletin 89-01 "Failure of Westinghouse Steam Generator Tube Mechanical Plugs". The enclosure provides the status of actions taken at Beaver Valley Power Station Units 1 & 2 to meet the requirements of the Bulletin.

If you have any questions concerning this response, please contact my office.

Very truly yours,

J. D. Sieber
Vice President
Nuclear Group

cc: Mr. J. E. Beall, Sr. Resident Inspector
Mr. W. T. Russell, NRC Region I Administrator
Mr. P. Tam, Sr. Project Manager
Director, Safety Evaluation & Control (VEPCO)

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COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF BEAVER)

On this 16th day of June, 1989, before me, Sheila M Fattore, a Notary Public in and for said Commonwealth and County, personally appeared J. D. Sieber, who being duly sworn, deposed, and said that (1) he is Vice President of Duquesne Light, (2) he is duly authorized to execute and file the foregoing Submittal on behalf of said Company, and (3) the statements set forth in the Submittal are true and correct to the best of his knowledge, information and belief.

Sheila M Fattore

Notarial Seal
Sheila M. Fattore, Notary Public
Shippingport Boro, Beaver County
My Commission Expires Oct. 23, 1989
Member, Pennsylvania Association of Notaries

DUQUESNE LIGHT COMPANY
Nuclear Group
Beaver Valley Power Station
Units Nos. 1 and 2

ATTACHMENT

Response to NRC Bulletin 89-01

References:

1. Westinghouse reports WCAP-12244 (proprietary version) and WCAP-12245 (non-proprietary version), "Steam Generator Tube Plug Integrity Summary Report." Revision 1, April 1989.

2. Westinghouse letter to NRC dated May 1, 1989 (NS-NRC-89-3432) "Steam Generator Tube Plug Integrity Update." (Proprietary)

Item 1

Addressees are requested to verify that information contained in References 1 and 2 relating specifically to their plants is correct for plugs supplied from heat numbers 3279, 3513, 3962, and 4523. The specific information to be verified is the number of Westinghouse mechanical plugs installed in the hot and cold legs broken down by steam generator number, heat number, and date of installation. If information from these references is incorrect, appropriate corrections should be identified. Addressees are requested to so state if their plants have not installed Westinghouse mechanical plugs from the subject heats.

Response

The information listed in WCAP-12244 Revision 1 is correct for Westinghouse plugs supplied from the subject heat numbers that are installed in Beaver Valley Units 1 & 2. (Reference 2 is not applicable to Beaver Valley.)

Summary of Westinghouse plug information for Beaver Valley:

Unit	S/G	# of Plugs	Heat #	Inst. Date
1	A	6 HL; 6 CL	3962	7-86
2	A	4 HL; 4 CL	3962	1-86
2	B	2 HL; 2 CL	3962	1-86
2	C	3 HL; 3 CL	3962	1-86

Item 2.a

Addressees are requested to take the following actions, to be implemented initially during any refueling outage or extended outage (greater than four weeks) which ends 30 days or more following receipt of this bulletin and during all future refueling outages.

a) Steam generator tube plug lifetime for plugs from heats 3279, 3513, 3962, and 4523 should be estimated using the methodology from References 1 and 2 and should be based on the Millstone Unit 2 benchmark subject to any corrections per item 1 above. Life time estimates in Reference 2 for plugs fabricated from heat 4523 are based on the Farley Unit 2 benchmark. These estimates should be adjusted to reflect the Millstone Unit 2 benchmark using the methodology described in Section 4.1.2 of Reference 1.

Response

The plug lifetime estimates have been calculated per the Bulletin requirements and the results are listed in WCAP-12244 Revision 1.

Items 2.b. & c

b) Addressees should implement appropriate remedial actions (i.e., repair and/or replacement) for all plugs whose estimated lifetimes in 2a, above do not extend to the next refueling outage. If operation is planned beyond a refueling outage that represents the last outage before any plug exhausts the predicted lifetime, an alternative schedule with the appropriate technical justification should be submitted to the NRC at least 30 days before the end of this refueling outage.

c) Prior to any plug repairs or replacement, addressees are reminded that their responsibilities under ALARA require analysis of the various plug repair or replacement methods available to determine which method will result in the lowest overall personnel radiation exposure while still remaining cost-effective. In choosing a plug repair or replacement method, the licensee should consider the accessibility of the plugs and the dose reduction benefit of using robotic manipulators. Prior to plug repair or replacement, the licensee should consider steam generator decontamination and/or local shielding to reduce working area dose rates.

Response

During the Unit 2 first refueling outage, remedial actions were implemented ("plug-in-plug" repair) for the Unit 2 hot leg plugs of heat 3962. The estimated lifetime for the Unit 2 cold leg plugs is well beyond the next (second) refueling outage, thus no remedial action was necessary at that time.

Remedial action for the Unit 1 hot leg plugs of heat 3962 (which are all located in steam generator 'A') will be required during the Unit 1 seventh refueling outage (7R) scheduled for September, 1989. All other steam generator work must be considered prior to determining the method of remedial action implementation. However, as a minimum, the Westinghouse hot leg plugs of heat 3962 will either be removed or captured with a "plug-in-plug" type modification during 7R. ALARA will be a consideration in the "method of fix" determination. The planned decontamination of the Unit 1 channel heads will be factored into the ALARA review.

The tube plug lifetime estimates do not require remedial actions for the cold leg plugs for Unit 1 and Unit 2 in the near future. However, ALARA considerations will be used in determining if any actions will be implemented in 7R for Unit 1 or 2R for Unit 2.

Item 2.d

d) Installation of Westinghouse mechanical plugs from heats 3279, 3513, 3962, and 4523 should be discontinued.

Response

Westinghouse plugs from heats 3279, 3513, 3962, and 4523 will be prohibited from installation at Beaver Valley Units 1 & 2.

Item 2.e

e) Westinghouse mechanical plugs removed from steam generators, regardless of heat number, should be examined for PWSCC on a sample basis for each heat. Addressees should maintain a record of these examinations and the results should be provided to Westinghouse to improve the database concerning the susceptibility of plugs to PWSCC.

Response

Any removed plugs will be examined for evidence of PWSCC, and Duquesne Light Company will provide the results to Westinghouse.

Items 3 & 4

Items 3 and 4 are not applicable to Beaver Valley.