January 17, 2001

Document Control Desk
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Attention: William H. Bateman

Subject: BWR Core Shroud Reinspection Intervals for Category B Plants

References: 1) Letter from Gus C. Lainas (NRC) to Carl Terry (BWRVIP Chairman), "Final Supplement to the Safety Evaluation of the BWR Vessel and Internals Project BWRVIP-07 Report (TAC NO. M94959)," dated April 27, 1998
2) Letter from William H. Bateman (NRC) to Carl Terry (BWRVIP Chairman), "Staff Reevaluation of Table 1 in the BWRVIP-07 Report (TAC NO. M94959)," dated October 6, 1999

The purpose of this letter is to request clarification regarding NRC approved BWR core shroud reinspection intervals for Category B plants as described in the BWRVIP-07 report.

The BWRVIP document "BWR Vessel and Internals Project, Guidelines for Reinspection of BWR Core Shrouds (BWRVIP-07)" describes proposed BWR core shroud reinspection intervals. The inspection strategy in the BWRVIP-07 report groups plants into three categories (A, B or C) depending on years of operation, core shroud material and water chemistry during the first five cycles of operation. In the Safety Evaluation that was transmitted by the Reference 1 letter identified above, the NRC staff concluded that the reinspection interval (in years), calculated according to the BWRVIP-07 guidelines, needed to be reduced to (n/2 + 1), when the calculated reinspection interval (n) is longer than two years. This requirement in Reference 1 applied to Category B and C shrouds. By the Reference 2 letter identified above, the NRC revised the core shroud reinspection intervals for Category C plants to be that in the enclosed table. However, this Reference 2 letter did not revise the acceptable reinspection intervals for Category B plants. Since the previous guidance in Reference 1 applied to both Category B and C plants, the revised guidance in the enclosed table for reinspection of Category C plants should also apply to Category B plants. This enclosed table has been included in the BWRVIP report "BWR Vessel and Internals Project, BWR Core Shroud Inspection and Flaw Evaluation Guidelines (BWRVIP-76)" as Table 2-1 that applies to Category B and C plants. The

6004

add. William Bateman to cc's

recommendations in this BWRVIP-76 report supersede the previous recommendations in core shroud reports BWRVIP-01, BWRVIP-07, and BWRVIP-63.

It appears that the Reference 2 application of the enclosed table to only Category C plants, and not Category B plants also, was an oversight. Therefore, the BWRVIP requests that the NRC staff approve the use of the enclosed table for both Category B and C plants.

If you have any questions on this subject, please contact Rich Ciemiewicz (PECO Energy – BWRVIP Assessment Committee Technical Chairman) by telephone at 717.456.4026.

Sincerely,

Tom J. Mulford

for Vaughn Wagoner
Carolina Power & Light
BWRVIP Integration Committee Technical Chairman

c: C. E. Carpenter, NRC

Core Shroud Reinspection Intervals
for Category C Plants (in years)

Percent Cracking[1, 2]	Stress[3] = 1 ksi		Stress[3] = 3 ksi		Stress[3] = 6 ksi	
	Limit Load	LEFM[4]	Limit Load	LEFM[4]	Limit Load	LEFM[4]
$x < 10$	10.0	10.0	10.0	10.0	10.0	10.0
$20 < x \leq 10$	10.0	10.0	10.0	10.0	10.0	6.0
$25 < x \leq 20$	6.0	6.0	6.0	6.0	6.0	6.0
$30 < x \leq 25$	6.0	6.0	6.0	6.0	6.0	[6]
$x \geq 30$	[6]					

Notes:

1. Length of weld inspected must be at least 50 percent of the weld circumference
2. Cracking is defined as the total length of as-found cracks as a percentage of the total length inspected for each weld. If the sizing uncertainty for the inspection method used exceeds (0.4" + 0.5°) in length at a flaw end, the amount above this should be included in the amount of cracking. Crack lengths should be rounded up to the next whole number.
3. Stress values are for faulted loading conditions. Interpolation between stress values is acceptable.
4. Applies to welds with cracking $\geq$ 10 percent where neutron fluence is greater than 3×10^{20} n/cm^2, and less than 5×10^{20} n/cm^2 (E > 1MeV). For fluences exceeding 5×10^{20} n/cm^2, a plant-specific analysis is required to be submitted to the NRC.
5. Linear extrapolation of the reinspection intervals is permitted up to a value of 10 ksi. Values should be capped (or rounded down) at values consistent with the approach in the above table.
6. Plant-specific analysis is required.

ENCLOSURE