ENERGY NORTHWEST

P.O. Box 968 ■ Richland, Washington 99352-0968

March 27, 2003
GO2-03-052

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397**
10 CFR 50.46 REPORT OF CHANGES IN CYCLE 17 ECCS EVALUATION MODEL

References:
1) Letter, GO2-02-138, dated September 3, 2002, RL Webring (Energy Northwest) to NRC, "Request for Amendment to Technical Specification 4.2.1 and 5.6.5.b"

2) EMF-2361(P)(A) Revision 0, EXEM BWR-2000, ECCS Evaluation Model, Framatome ANP, May 2001

3) Letter, GI2-02-181, dated October 31, 2002, Brian Benney (NRC), to Energy Northwest, "Summary of Meeting Held on October 2, 2002, Regarding Transition to New Fuel"

Dear Sir or Madam:

The purpose of this letter is to report, in accordance with the requirements of 10 CFR 50.46(a)(3)(ii), the impact of non-significant changes in the Emergency Core Cooling System (ECCS) evaluation methodology used in the determination of the peak cladding temperature predicted for Columbia Generating Station operation during cycle 17.

Columbia Generating Station is currently in cycle 16. The next refueling outage is scheduled to begin in May 2003 and end in June 2003. Reference 1 submitted a request for amendment to the Columbia Generating Station Technical Specifications that would support the transition from Westinghouse SVEA-96 to Framatome ANP ATRIUM-10 reload fuel. This amendment request identified Reference 2 as the methodology that would be used to perform the Emergency Core Cooling System evaluations for operation during cycle 17.

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At a meeting held with the Staff on October 2, 2002, to discuss the transition plan to the new fuel (Reference 3) it was noted that several changes to the approved ECCS methodology (Reference 2) would be made to support the cycle 17 analyses. Energy Northwest committed to reporting these methodology changes to the Staff within 30 days of plant restart. These methodology changes and their impact are summarized below.

The methodology described in the NRC approved topical report noted by Reference 2 was applied in the ECCS analyses for Columbia Generating Station Cycle 17 reload analyses. The topical report describes several validation calculations and sample problems used to justify the methodology. The RELAX computer code described in the topical report was modified for use in performing the Columbia Generating Station analyses. A description of the modifications and their impact on the calculated peak cladding temperature (PCT) is summarized below. These methodology modifications were explicitly used in the calculation of the ATRIUM-10 licensing basis PCT (1404 °F for two recirculation loop operation) during cycle 17.

Methodology Modification	ATRIUM-10 PCT Impact (Δ °F)
A unit conversion factor change in RELAX, MW to BTU	0
The upper limit on the void fraction in the RELAX slip model logic is increased to improve numerical stability	-11

If you have any questions or require additional information regarding this matter, please contact Ms. CL Perino, Licensing Manager at (509) 377-2075.

Respectfully,

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