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## Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

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June 18, 1985  
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REGION V I&E

Docket No. 50-397

Mr. J. B. Martin  
Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, CA 94596

Dear Mr. Martin:

Subject: NUCLEAR PLANT NO. 2  
RADIOCHEMICAL ANALYSIS, SUPPLEMENTARY INFORMATION

Reference: WNP-2/NRC Special Team Inspection Exit Interview  
conducted April 26, 1985

During the referenced exit interview the inspectors noted poor chemistry lab performance with respect to the radiochemical analysis for strontium. Specifically, analysis results lower than expected by cross check analysis. As informally committed to during the referenced exit meeting, the attached information providing a description of the problem and corrective action is forwarded.

Should you have any questions, please contact Mr. P. L. Powell, Manager, WNP-2 Licensing.

Very truly yours,

*SC Sorensen*  
G. C. Sorensen, Manager  
Regulatory Programs

PLP/tmh  
Attachment

cc: JO Bradfute - NRC  
WS Chin - BPA  
E Revell - BPA  
NS Reynolds - BLCP&R  
AD Toth - NRC Site

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### Description of Problem

A review of the strontium 89, 90 procedure revealed a problem associated with the barium separation step. The procedure requires the addition of 2 ml of barium hold back carrier. Since the barium hold back carrier precipitation is not quantitative due to the solubility of the precipitate a fraction of the hold back carrier is retained with the strontium carrier. The barium is then precipitated as the carbonate with the strontium giving a high carrier recovery. The higher carrier recovery results in calculating a lower than actual number for strontium 89 and 90.

### Corrective Actions

The strontium procedure is being modified so only 0.3 ml of barium hold back carrier will be used. The Supply System has completed this modification, analyzed cross check samples and recently provided the results for comparison to the Region V Staff.

