

# SIEMENS

December 21, 1993

U.S. Nuclear Regulatory Commission  
Attn: Mr. Richard Milstein  
Division of Fuel Cycle Safety & Safeguards  
Licensing Branch  
Washington, DC 20555

Dear Mr. Milstein:

**Ref: UO<sub>2</sub> Powder, Between-Lot-Standard Deviation & Uranium Solutions, Safeguards Plan Revision**

As we discussed today, Dick Schneider will be in the office around 8:00 A.M. on Wednesday the 22nd at which time we will be calling you and Don regarding the Uranium Solutions question. As I promised, a copy of the November 17 - 21, 1986 NRC Inspection relating to the Uranium Solutions is attached.

Since your visited to Richland last week, I have had time to prepare an answer to your question on EMF-12, section 4.5.1.2.2 Analytical Measurements - "between lot standard deviation" as follows:

When the % Uranium for UO<sub>2</sub> Powder lots is determined from one uranium analysis, control is maintained by setting control limits based on the historical, between lot standard deviation for powder lots since the last time the average % uranium factor was changed. Attachment one shows how the current average % uranium powder factor is established and how the control limits are derived. Once the control limits are established, % uranium results for each subsequent lot are reviewed to assure that they are between the upper and lower limits. Should an analysis result fall outside of the range, the value is reviewed and a reason determined. Another sample may be analyzed for lots whose initial value fell outside of the tolerance limits.

The CUSUM is evaluated as described in section 4.5.3.2 paragraph 4.

Let me know if you have any questions.

Yours Very Truly,

*D. L. Noss*  
D. L. Noss,

Safeguards Specialist

Siemens Power Corporation

Nuclear Division - Engineering and Manufacturing Facility

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