



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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LICENSEE: Siemens Power Corporation
Richland, Washington

SUBJECT: SAFEGUARDS EVALUATION REPORT: APPLICATION DATED OCTOBER 6, 1993,
FNMC PLAN REVISIONS

Background

By application dated March 26, 1993, Siemens Power Corporation (SPC) submitted changes to its Fundamental Nuclear Material Control (FNMC) Plan. In a letter to SPC dated June 28, 1993, the NRC requested additional information. On October 6, 1993, SPC submitted a revised application which superseded the March submittal. As the result of a meeting on December 16, 1993, and further telephone discussions, SPC submitted supplemental information on February 4, 1994.

Discussion

Several minor changes were made in Section 1 of the FNMC Plan to reflect changes in the management structure. A number of these involved changes in job titles.

In Section 4 of the FNMC Plan, which addresses the Measurement Control Program, the licensee made changes to clarify current practices. In Section 4.5.1.2.2, changes were made in the use of control charts and CUSUM tabulations to reflect improvements in automation. Section 4.5.2.1 was changed to clarify the definition of control limits for NDA measurements. In addition, SPC has modified its method of determining when the plant average uranium factor (i.e., % uranium) for uranium powder and pellets will be changed. The new method, which is based on the absolute value of CUSUM, is more sensitive to gradual changes in the factor but less sensitive to larger changes. This will result in a reduction of the frequency of factor changes.

A proposed modification to Section 5 resulted in a closer examination of SPC's policy regarding verification measurements. In particular, the currently approved Plan does not require the licensee to verify the contents of uranium solutions with concentrations less than 5 grams/liter. That is, although the integrity of the containers are checked through visual examination, the solutions are neither tamper-safe sealed nor measured prior to inventory. The amount of uranium currently exempted from verification is approximately 100 kg U-235. Since there is no limit to the amount of material exempted, there is concern that the current practice would not detect the loss of a

detection quantity of material with a 90 percent power of detection. To correct this situation, NRC proposed that SPC make the following Plan changes:

1. The detection quantity (DQ) should be defined as 1.3 percent of the current inventory period annual throughput. (At the 1993 level of throughput, the DQ would be 333 kg U-235.)
2. At the time of physical inventory, there should be a cap on the amount of U-235 in the uranium solutions that could be exempted. Any exempted quantity (EQ) less than DQ would be acceptable. However, it was suggested that EQ be limited to 50 percent of DQ.
3. There should be a condition set at which point the licensee commits to verifying the previous measurements of the uranium solutions. That condition should occur when:

$$ID > DQ - EQ$$

4. The sampling plan to be used for verifying the uranium solutions should be specified.

SPC's February 4, 1994, submittal incorporated NRC's proposed changes.

Categorical Exclusion

These changes are considered administrative in nature. The staff has determined that the proposed changes do not adversely affect the public health and safety or the environment. Therefore, in accordance with 10 CFR 51.22(c)(11), neither an environmental assessment nor an environmental impact statement is warranted for this action.

Conclusion

The staff has concluded that the proposed revisions qualify as changes made pursuant to 10 CFR 70.34. Furthermore, these changes do not adversely affect the common defense and security nor the public health and safety and are otherwise in the public interest.

It is recommended that these FNMC Plan changes be incorporated as a condition of the license by revising Safeguards License Condition SG-1.1.

Principal Contributors:

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