



February 27, 1997  
JBE:97:024

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Gentlemen:

**Subject: Reply to a Notice of Violation**

**Ref:** Letter, R.A. Scarano to B.N. Femreite, "NRC Inspection Report 70-1257/97-01 and Notice of Violation" dated January 30, 1997

Below is Siemens Power Corporation's (SPC's) reply to the notice of violation accompanying the referenced letter.

Violation

Safety Condition S-1 of SNM License 1227, (in effect at the time), authorized the use of license materials in accordance with the statements, representations, and conditions contained in Part I of the Licensee's application dated July 1987, and supplements and revisions thereto.

Section 2.5, "Operating Procedures, Standards and Guides," Part I of the license application stated, in part, that the licensee is committed to controlling activities in accordance with Standard Operating Procedures, Company Standards and Policy Guides.

Item 2, Section 2.2, of Procedure EMF-858, No. 1.13, "Engineering Change Notice (ECN)," Revision 16, dated October 24, 1995, states, in part, that field changes done under an open ECN must be documented and included in the ECN file prior to startup approval.

Contrary to the above, a field change was made under an open ECN (No. 5533L) and was not documented or included with the ECN package prior to startup approval on August 6, 1996. Specifically, the electrical supply to a controller for two newly installed air sampling vacuum pumps was changed to a different power source from that provided in the drawing with the ECN package. This field change resulted in the failure of the air sampling system to operate on emergency power as intended during a loss of normal site power on December 10, 1996.

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### SPC Reply

#### Reason for the Violation

The ECN procedure allows field changes to an ECN approved for installation to be made by the responsible engineer but requires that the change be documented in the ECN file to allow for proper review prior to startup approval or final approval, depending on when the field change was made. During installation of the new vacuum pump, it was determined that the wiring, as indicated on the ECN drawing, would not result in the availability of power to the new pump under certain conditions. The contract electrician was therefore instructed by the responsible engineer to find an alternate source of power for the pump. However, the responsible engineer failed to recognize that the alternate power selected by the electrician would not provide emergency power and subsequently failed to mark the ECN form indicating that a field change had been made. The startup approvers, therefore, had no "flag" warning of a change and hence approved startup without proper consideration of the field change. After startup, the ECN package was turned over to the design/drafting group to have the drawings as-built. Upon completion of the as-built drawings, the designer mistakenly removed the red line drawings from the ECN file since he had completed the master drawings properly reflecting the as-built condition. The ECN package was circulated for final approval showing that as-builts had been completed but still not showing that a field change had been made, i.e. field change box not checked and, in this case, no red lined drawings included.

The Incident Investigation Board (IIB), originally convened to ascertain the cause of the December 10, 1996 fire at the Product Development Test Facility (PDTF) and to evaluate reaction of the plant to the partial loss of power, was reconvened February 6, 1997 to determine the root cause of the inadequate ECN documentation. The root cause of the inadequate ECN documentation was determined by the reconvened IIB to be failure to follow a written procedure. Specifically, ECN Procedure EMF-858 No. 1.13 Rev. 16, which required that field changes be documented and that documentation be kept with the ECN package for final approval, was not followed.

#### Immediate Corrective Actions

Based on the corrective action specified by the initial IIB, ECN 5900S was undertaken to connect the air sampler vacuum pump to emergency power. This installation was completed (including testing) on 12/21/96. In addition, based on the results of the reconvened IIB, the NRC Notice of Violation was reviewed with every manager, supervisor, engineer and engineering assistant in Plant Engineering to help stress the seriousness of not following the ECN procedure in complete detail. Instructions were issued to all designers not to remove red line drawings from the ECN files even after they have completed the as-builts. Future red lined drawings will be stamped, "Original - Do Not Remove from ECN Package".

#### Corrective Actions to Avoid Further Violations

The ECN procedure (EMF-858 Procedure 1.13) is currently being updated primarily to reflect minor editorial changes prior to annual ECN training. As a result of this violation a requirement

will also be added that; (1) if a field change is made prior to startup, the "Field Change" box on the ECN form shall be checked prior to routing the ECN for startup approval; and (2) if a field change is made after startup, the "Field Change" box shall be checked prior to routing the ECN for final approval. Upon completion of the updating, all managers/supervisors/designers/engineers/engineering assistants will be given their annual ECN training with special emphasis on documenting field changes.

Date of Full Compliance

The actions described above will be completed by March 31, 1997.

If you have any questions regarding these actions or require more information, please contact me at 509-375-8663.

Very truly yours,



James B. Edgar  
Staff Engineer, Licensing

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cc: U.S. Nuclear Regulatory Commission  
Regional Administrator, Region IV  
Arlington, TX

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