

SNUPPS

Standardized Nuclear Unit
Power Plant System

5 Choke Cherry Road
Rockville, Maryland 20850
(301) 869-8010

February 27, 1986

Nicholas A. Petrick
Executive Director

SLNRC 86-4 FILE: J-111/0278
SUBJ: Plant Safety Parameter Display
System Verification and
Validation Program Completion

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docket Nos.: STN 50-482 and STN 50-483

Dear Mr. Denton:

The purpose of this letter is twofold: first, to inform the NRC that the verification and validation (V&V) program for the Safety Parameter Display System (SPDS) at the SNUPPS plants, Callaway Plant Unit No. 1 and Wolf Creek Generating Station Unit No. 1, has been successfully completed, and second, to clarify three issues previously discussed with the NRC.

V&V Program Completion

On May 22, 1985, members of the SNUPPS Utilities and SNUPPS Staff met with the NRC staff to discuss staff concerns regarding the SNUPPS SPDS. Chapter I.D.2 "Plant Safety Parameter Display System", extracted from Wolf Creek's SSER 5, formed the basis for these discussions. Based on requests by the NRC staff, three of the slides prepared by the SNUPPS Utilities and SNUPPS Staff for use during the presentation are attached and will be discussed below. Conclusions reached during this meeting indicated that the NRC should be able to accept the SNUPPS SPDS subject to completion of the V&V program. Now that the V&V program is complete, the hardware and software requirements for an SPDS at both SNUPPS plants is considered to be satisfied. Documentation regarding the V&V program is available for NRC inspection.

Issue Clarification

1. Validation Case Selection

Scenarios which were used as part of the SPDS validation included the following:

- Large Loss of Coolant Accident (LOCA)
- Loss of main feedwater
- Core power excursion
- Steam generator tube rupture with loss of offsite power
- Large steamline break
- A beyond-Design Basis scenario i.e., LOCA with inadequate core cooling and fuel damage

8603040280 860227
PDR ADOCK 05000482
P PDR

AOO1
1/0

At least one scenario included specific criteria that demonstrated assessment of radioactivity control in an isolated steam generator; this commitment was made to the NRC on May 22, 1985.


2. Steam Generator and Steamline Radiation Monitoring in Verification and Validation Program

The SPDS has no additional monitoring capability for isolated steam generators beyond that currently provided for in the control room. To determine radiation levels in the secondary side of the steam generator, it is necessary to obtain samples from the steam generator blowdown lines.

3. Containment Isolation

Containment isolation indication on the SPDS is unnecessary because the SNUPPS design incorporates an Engineered Safety Features Status Panel which is the primary source of information used to determine containment isolation status of individual valves and systems. The panel is conveniently located on the main control board and easily observed from any point within the control room proper.

Very truly yours,



N. A. Petrick

DJK/jal/20610

Attachments

cc: J. M. Evans KCPL
G. L. Koester KGE
D. F. Schnell UE
J. E. Cummins USNRC/WC
E. H. Johnson USNRC/Reg. IV
B. Little USNRC/CAL
G. C. Wright USNRC/Reg. III