AUG 23 1985

Docket No. 50-354

Mr. R. L. Mittl, General Manager
Nuclear Assurance and Regulation
Public Service Electric & Gas Company
P. O. Box 570, T22A
Newark, New Jersey 07101

Dear Mr. Mittl:

SUBJECT: INSTRUMENTATION AND CONTROL SYSTEMS BRANCH SITE VISIT TO HOPE CREEK

Enclosed is an agenda for the Instrumentation and Control Systems Branch site visit to Hope Creek which is scheduled for September 16 - 19, 1985. This date has been discussed with Mr. Bruce Preston of your staff. The agenda items have been selected so that the staff can evaluate the implementation of 2 instrumentation and control systems for both standard ICSB review areas (i.e. physical separation between redundant safety-related circuits within instrument cabinets) and special interest areas addressed during the licensing review. The site visit will concentrate on those areas which will aid in the resolution of SER open and confirmatory issues.

Please call us should you have any questions.

Sincerely,

Original signed by:

Walter R. Butler, Chief
Licensing Branch No. 2
Division of Licensing

Enclosure:
As stated

cc: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Licensing Branch No. 2
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Enclosure:
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Enclosure 1

INSTRUMENTATION AND CONTROL SYSTEMS BRANCH
SITE VISIT AGENDA FOR HOPE CREEK

1. Control Room

a. Review general layout of the control room.

b.* Review the RPS and ESF instrument cabinet wiring (identification of safety related and associated circuits, physical separation provided between redundant safety related circuits and between safety related and non-safety related circuits, isolation provided for interdivisional wiring, etc.) (SER Section 7.2.2.7).

c.* Review the internal wiring of the main control boards (physical separation between redundant safety related circuits and between safety related or non-safety related circuits, e.g., control and annunciator circuits).

d. Review the isolation devices and the associated equipment within the termination cabinets, and the annunciation, if provided, upon self-test detected failures.

e. Review the turbine first stage pressure indication provided at the trip unit modules used to bypass the end-of-cycle recirculation pump trip (RPT). Review the bypass status lights and the annunciation provided when either RPT logic division is bypassed.

f.* Review the safety relief valve position indication resulting from TMI Action Plan Item II.D.3. In addition, review the calibration procedure for the SRV pressure switches (SSER 2, 7.5.2.1).

g. Review the containment pressure, water level, and hydrogen concentration instrumentation required by TMI Action Plan Item II.F.1 (4), (5), & (6).

h. Review the bypassed and inoperable status indication provided for the RPS, ESF systems, and other systems required for safety (SER Section 7.5.2.4).

i. Review all ranges of reactor vessel water level instrumentation provided (indicators and recorders and their safety classification).

j. Review indication/annunciation for the following:

1. Transfer of control to the remote shutdown panel(s).

2. Reactor vessel low level & drywell high pressure.

3. ECCS low pressure permissive logic satisfied.

4. HPCI manual override (prevents auto restart at level 2).

5. SDV high level trip bypassed.

6. SLCS tank low temperature.

7. Unit Cooler low discharge flow, auto trip, reactor plant vent system inoperative, etc.

8. ADS manual inhibit switch operation.

2. Shutdown from Outside the Control Room

a.* Walk from the control room to the remote shutdown panels along the path to be taken by the operators in the event of control room evacuation.

b.* Review the instrumentation provided at the remote shutdown panels, and the locations of the transfer switches.

c.* Review the remote shutdown panel internal wiring (separation between safety related and non-safety related circuits).

d.* Review how a reactor trip may be accomplished from outside the control room.

e. Review remote shutdown panel accessibility, and the ventilation provided for the remote shutdown panel areas.

3. Reactor Building, Auxiliary Building, and Turbine Building

a. Review the safety relief valve (SRV) pressure sensors installed on the SRV discharge lines.

b.* Review the RPS MG sets, the associated electrical protection assemblies (EPAs), the EPAs provided between the RPS alternate sources and the RPS, and distribution panels P001 & P002.

c. Review the scram discharge instrument volume and associated instrumentation.

d. Review the Solid State Logic Module Installation.

e. Review the ESF pump rooms (HPCI, RCIC, RHR, LPCS).

f.* Review the instrumentation (instrument lines, transmitters, and associated circuits) used to provide the low reactor pressure permissive interlock function for the redundant low pressure ECCS systems (for both injection valves and the suction valves from the recirculation loop) (SER Section 7.6.2.1).

g. Review the following plant equipment:

1.* ADS solenoids.

2.* MSIV solenoids.

3. Diesel generators and local control capability.

4. SLCS pumps, explosive squib valves, and storage tank.

5. RSCS BJMs, transponders, and the control rod drive mechanisms.

6. TIP system.

7. Main steamline flow and radiation sensors.

4. Circuit Traces

a.* Trace the circuitry (from sensors to protection system cabinets) used to transfer HPCI and RCIC pump suction to the suppression pool on CST low level.

b.* Trace redundant RPS circuits from the control room to the scram pilot valve solenoids at the individual HCUs.

5. Local Instrument Racks/Piping

a.* Review the physical separation between and the routing of redundant reactor vessel level instrumentation (from vessel taps to transmitters).

b. Review the turbine first stage pressure instrument taps and transmitters.

6. Capability for Testing

a.* Walk through the planned testing procedures (channel functional tests, logic tests, etc.) for a typical RPS/ESF initiation instrument and logic channels (SER Section 7.3.2.5).

*These items should receive priority.