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SUBJECT: Discusses util actions taken re BWR Regulatory Response Group 840217 recommendations in GE SIL 402, "Wetwell/Drywell Inerting." On 840315,visual insp of Unit 1 performed & no indications or cracking found.

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SEP 25 1984

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
COMPLIANCE WITH GE SIL 402
ER 100450 FILE 841-4
PLA-2313

Docket Nos. 50-387
50-388

Dear Mr. Schwencer:

As suggested by the Boiling Water Reactor Regulatory Response Group chairman in his letter of February 17, PP&L verbally described our status with regard to the recommendations in GE SIL 402, "Wetwell/Drywell Inerting" to our project manager on March 13, 1984. The following documents the actions PP&L has taken to respond to the five recommended actions in SIL 402. These responses are applicable to both the nitrogen inerting and nitrogen makeup systems.

1. Evaluate Inerting System Design

Evaluate the design of the nitrogen inerting system. Investigate the potential for introducing cold (less than 40°F) nitrogen and the orientation of the nitrogen port relative to the vent header, downcomers, or other equipment in the wetwell and drywell which may be in the path of the injected nitrogen. Assure that the temperature monitoring devices, the low temperature shutoff valve, and overall system design are adequate to prevent the injection of cold nitrogen into the containment.

Response: A cursory design review of the inerting systems on both Unit 1 and Unit 2 was performed. The SSES systems utilize an atmospheric vaporizer, thus preventing the injection of nitrogen colder than the ambient temperature. The uninsulated system piping is approximately 500 feet from the vaporizer to the containment, thus the nitrogen is further heated as it travels through the plant buildings. Additionally, the nitrogen makeup system is equipped with a low temperature shutoff valve. The SSES nitrogen parts in our Mark II containment design are not near nor do they adversely impinge on any equipment in the wetwell or drywell.

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2. Evaluate Inerting System Operation

Review the operating experience of the inerting system to assure that the vaporizer, the low temperature shutoff valve and the temperature indicators have functioned properly. Evaluate the plant calibration, maintenance and operating procedures for the inerting system. Assure that cold nitrogen injection would be detected and prevented.

Response: Operation of the Unit 1 inerting system was performed to assure that the vaporizer, low temperature shutoff valve and other system components have functioned properly. Proper operation was verified. Plant calibration, maintenance and operating procedures for the nitrogen systems were also reviewed. The design, operation, and maintenance of these systems assures that the injection of cold nitrogen does not occur.

3. Test for Drywell/Wetwell Bypass Leakage

Perform a bypass leakage test as soon as convenient to confirm the integrity of the vent system. This test should be conducted during plant operation following normal plant procedures. If no procedures exist, the following is a general guide for preparing your procedure: pressurize the drywell to approximately 0.75 psi above the wetwell pressure, maintain this drywell pressure and measure the pressure buildup in the wetwell. Any bypass leak area can then be calculated (and is limited by Technical Specifications on many plants) from the wetwell pressure and the drywell-wetwell pressure difference. This will provide an indication that the vent system integrity is intact and that no gross failure exists.

Response: A drywell/wetwell bypass test was performed on Unit 1 on May 6, 1983. The next test is planned prior to 3/23/85.

4. Inspect Nitrogen Injection Line

Conduct an ultrasonic test (UT) as soon as convenient of all accessible welds in the nitrogen injection line from the last isolation valve to the wetwell and drywell penetrations. Also UT the containment penetrations and the containment shell within 6 inches of the penetration. UT is recommended because cracks would be most likely to initiate on the inside of the pipe or on the side of the metal in contact with cold nitrogen.

Response: We hydro-tested all of the nitrogen injection lines just prior to the occurrence at Hatch. We are therefore convinced that these lines, which have only been in service for a short period of time, exhibit adequate structural strength to rule out the existence of significant cracking. As visual inspection of the piping indicated no question which would indicate that volumetric examination of the injection line welds is desirable, we decided not to pursue this recommendation further.

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5. <u>Inspect Containment</u>

During the next planned outage, perform a visual inspection of the vent header, downcomers and other equipment in the containment which might be expected to be affected by the injection of cold nitrogen. The vent header should be inspected on the outside and the inside. Also inspect the containment shell or steel liner for at least 6 inches around the nitrogen penetration.

<u>Response:</u> On March 15, 1984, a visual inspection was performed of the Unit 1 nitrogen injection lines within the drywell. Also inspected was surrounding equipment and the containment liner plate for approximately 2 feet around the penetrations. The SSES Mark II containment design has no vent header. No suspicious indications or signs of cracking were found as a result of this inspection.

We hope you find the above satisfactory.

Very truly yours,

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

cc: R. L. Perch - NRC
R. H. Jacobs - NRC