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MILLER,C.L. Project Directorate I-2

SUBJECT: Responds to GL 92-04, "Resolution of Issues Related to
Reactor Vessel Water Level Instrumentation in BWRs Pursuant
to 10CFR50.54(F)." Util has performed detailed review of
EOPs & licensing basis events being reviewed for impact.

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SEP 25 1992

Director of Nuclear Reactor Regulation
Attention: Mr. C. L. Miller, Project Director
Project Directorate I-2
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
RESPONSE TO GENERIC LETTER 92-04
PLA-3857 FILES R41-1D, R41-2**

Docket Nos. 50-387
and 50-388

References: 1) Letter, BWROG-92082, dated September 24, 1992.
2) Letter, BWROG-92072, dated August 12, 1992.

Dear Mr. Miller:

The purpose of this letter is to provide PP&L's item-by-item response to NRC Generic Letter 92-04, "Resolution of the Issues Related to Reactor Vessel Water Level Instrumentation in BWRs Pursuant to 10 CFR 50.54(F)".

NRC REQUESTED ACTION 1: In light of potential errors resulting from the effects of noncondensable gas, each licensee should determine:

- a. The impact of potential level indication errors on automatic safety system response during all licensing basis transients and accidents;
- b. The impact of potential level indication errors on operator's short and long term actions during and after all licensing basis accidents and transients;
- c. The impact of potential level indication errors on operator actions prescribed in emergency operating procedures or other affected procedures not covered in (b).

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PP&L RESPONSE:

- 1a. PP&L has reviewed the BWR Owners' Group report on Reactor Vessel Water Level Instrumentation, Revision 1, August 1992. This report addresses the safety impact of potential water level indication errors on automatic system response during all licensing basis transients and accidents. In order to determine the applicability of this generic evaluation to Susquehanna SES, PP&L has independently reviewed our plant-specific transient and accident design bases. Our conclusion is that all automatic actuations occur prior to depressurization below 600 psia, except in two cases. In those two cases, the automatic actuations are predicted to occur in response to high drywell pressure/low reactor pressure signals, which are unaffected by the potential level instrumentation indication problem.
- 1b. In the short term, as stated in our response to 1a. above, PP&L has confirmed that safety actuations will occur to mitigate all licensing basis transients and accidents. Furthermore, training began in early August in order to sensitize our operations personnel to the water level issue. This training includes (but is not limited to) the latest explanations we have of the phenomenon and its potential impact on indicated level, and the importance of mitigating any reference leg leakage observed.

For the longer term response, PP&L has performed a detailed review of our emergency operating procedures (EOPs) to ensure that appropriate actions that could result from a rapid depressurization event will occur, given the potential for errors in indicated water level. We have concluded that our existing EOPs, in combination with the operators' increased knowledge of the issue, will be adequate to ensure that potential level indication errors do not adversely impact operator actions.

- 1c. As stated above, PP&L believes that our operators have been provided adequate guidance to ensure appropriate actions. This conclusion is based on our review of both off-normal and emergency procedures. However, we are continuing to evaluate the need to enhance the effectiveness of this guidance. Sources of potential change include our continuing evaluation, as well as the information expected to be gained through the BWROG program of analysis and testing. PP&L endorses the BWROG responses regarding operator actions provided in Attachment 1 to Reference 1.

NRC REQUESTED ACTION 2: Based upon the results of (1) above, each licensee should notify the NRC of short term actions taken, such as:

- a. Periodic monitoring of level instrumentation system leakage; and,
- b. Implementation of procedures and operator training to assure that potential level errors will not result in improper operator actions.

PP&L RESPONSE:

2. As discussed in 1. above, PP&L has taken a number of short term actions in response to this concern. They include:
 - o Supporting the BWROG/RRG activities to respond to NRC concerns.
 - o Providing training on this phenomenon to the operations staff.
 - o Reviewing our licensing basis events for impact.
 - o Reviewing our procedures for impact and potential changes.
 - o Recording water level data during the recent shutdown of SSES Unit 2 for its 5th refueling and inspection outage.
 - o Implementing plans to perform walkdowns of each steam leg, condensing chamber, and reference leg to confirm their design during the ongoing Unit 2 refueling and inspection outage, and the next Unit 1 refueling and inspection outage (Fall 1993).

PP&L believes that the last two items will help us in mitigating potential leakage. Furthermore, we believe that leakage can be discovered through already required Technical Specification channel checks during operator rounds. We are continuing to evaluate other methods to monitor for and mitigate the potential for leakage.

Our efforts on the specific area of procedures and operator training were discussed in 1. above.



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NRC REQUESTED ACTION 3: Each licensee should provide its plans and schedule for corrective actions, including any proposed hardware modifications necessary to ensure the level instrumentation system design is of high functional reliability for long term operation. Since this instrumentation plays an important role in plant safety and is required for both normal and accident conditions, the staff recommends that each utility implement its longer term actions to assure a level instrumentation system of high functional reliability at the first opportunity but prior to starting up after the next refueling outage commencing 3 months after the date of this letter.

PP&L RESPONSE:

3. PP&L endorses the BWROG plans originally provided for NRC review on August 12, 1992 (Reference 2). We believe this plan is the appropriate way to resolve this issue for the reasons discussed in Reference 1. Should this plan determine that changes to the design or operation of Susquehanna are warranted, PP&L will promptly notify the NRC, and provide a plan and schedule commensurate with the safety significance of the change.

Any questions on this response should be directed to Mr. R.R. Sgarro at (215) 774-7914.

Very truly yours,


H.W. Keiser

cc: NRC Document Control Desk(original)
NRC Region I
Mr. G. S. Barber, NRC Sr. Resident Inspector
Mr. J. J. Raleigh, NRC Project Manager