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U. S. Nuclear Regulatory Commission
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Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
COMMENTS ON FEDERAL REGISTER NOTICE
TITLED "NUREG/CR-6595, REVISION 1, AN APPROACH
FOR ESTIMATING THE FREQUENCIES OF VARIOUS
CONTAINMENT FAILURE MODES AND BYPASS EVENTS,
DRAFT REPORT FOR COMMENT" - 68FR52064
PLA-5684**

**Docket Nos. 50-387
and 50-388**

The purpose of this letter is to provide PPL Susquehanna, LLC (PPL) comments on the Federal Register Notice titled "NUREG/CR-6595, Revision 1, An Approach for Estimating the Frequencies of Various Containment Failure Modes and Bypass Events," published in the Federal Register on August 29, 2003 (68FR52064).

Enclosed are PPL comments. PPL appreciates the opportunity to comment on this updated NUREG/CR-5695.

Should you have any questions or require additional information, please contact Mr. John M. Oddo at (610) 774-7596.


B. L. Shriver

Enclosure

Copy: NRC Region I
Mr. R. V. Guzman, NRC Project Manager
Mr. S. Hansell, NRC Sr. Resident Inspector
Mr. R. Janati, DEP/BRP

A001

Enclosure to PLA-5684

**PPL SUSQUEHANNA, LLC COMMENTS ON
NUREG/CR-6595, REVISION 1, AN APPROACH
FOR ESTIMATING THE FREQUENCIES OF VARIOUS
CONTAINMENT FAILURE MODES AND BYPASS EVENTS,
DRAFT REPORT FOR COMMENT**

Reference: Federal Register of August 29, 2003 (68FR52064).

1. On page 3-4, there is a discussion regarding depressurization by the operator, and the assumption is that this depressurization occurs following the occurrence of core damage. It is not clear why it is assumed that the operator action is taken following core damage, versus before core damage. There are sequences where core damage occurs following depressurization, should the low pressure systems fail to inject following depressurization. We suggest the following reworded statement:
“Depressurization by the operator - A plant may wish to take credit for depressurization of the RCS ~~after core damage~~ by the operators. Justification should be provided if ~~such a procedure is assumed~~ *depressurization is performed by procedure after core damage.*”
2. On page 3-6, under Question 2, a statement is made that “. . . the conditional probability of early containment failure and suppression pool bypass due to ATWS is 0.4 in BWR Mark II containment plants.” This conditional failure probability seems extremely high. Early containment failure on ATWS requires failure of either Standby Liquid Control (SLC) or Suppression Pool Cooling. Both SLC and Suppression Pool Cooling are operator action controlled, directed by plant procedures, and evolutions for which the operators are well trained. Therefore, the probability of failure of either function would appear to be lower than stated on page 3-6.
3. On page 3-6, Question 5 asks “Water on the Pedestal or drywell floor?” A better question to ask may be “Are the drywell sprays available and in operation at time of vessel breach?” The drywell sprays, if in operation, will suppress rapid heat-up of the drywell atmosphere and will place water on the drywell floor. When vessel breach occurs, molten core material is injected into the drywell. The operation of drywell sprays places moisture into the drywell atmosphere and floods the drywell floor, thus mitigating heatup of the drywell atmosphere and the effects of core concrete interaction.

4. There are a number of cases in the report (example; Question 2 on page 3-6) where “data generated in the IPE program . . .” is used in support of several statements in the report. It is unclear how this “data” is gathered and used. If a calculation has been done to support these statements, the calculation should be identified. If not, an appendix should be added discussing how these conclusions were generated.

5. Section 3 discusses BWR primary containment designs. In this section, Question 2 states that “A negative response to this question means containment integrity is lost and the flow path out of containment is sufficiently large (leakage rates greater than 100 percent containment volume per day have been found risk significant in past studies) such that early health effects are likely if core damage occurs.” This statement is only true if the secondary containment can no longer process primary containment leakage. The document does not discuss secondary containment, which is an important protection feature against ill health effects due to a radiological release. Consideration should be given to revising the document to account for this important protection feature.