

at the center of

Philadelphia Electric Company

(Limerick Generating Station)

Units 1 and 2)

Docket Nos. 50-352 and 50-353



Intervenor Lewis's First Set of Interrogatories on PTS Contention.

In compliance with the schedule established in the 2nd Prehearing Conference by the ASLB, Intervenor Lewis submits the following interrogatories to the NRC Staff and the license applicant. Please use the "Definitions and Instructions" set up by the "Applicant (in his First Set of Interrogatories and Request for Production of Documents to Delaware)" dated July 21, 1982, on Pages 1 thru 4 inclusive.

I am submitting the same set of interrogatories to the Staff and the Applicant.

If the Staff and the Applicant confer on their answers to the interrogatories, please state so. If the Staff and the Applicant wish to present only one set of combined answers to the interrogatories, state the level of agreement: complete, partial, or disagreement in which elements of the answer.

1. Is pressurized thermal shock a problem in BWRs ;specifically Limerick 1 & 2?
2. What is the basis for the conclusion that PTS (pressurized thermal shock) will not cause a failure at Limerick of safety related or important to safety structures? or Conversely, to what extent do you conclude that safety related and important to safety will be affected and to what extent affected? (For instance, describe failure.)
3. Provide the actual numerical data that has generated the answer to Interrogatory 2, above. Provide data, calculations, geometries from blueprints, computer run results, and professional opinions. Make your answer as complete as possible: temperature gradients across the RPV wall for a series of cool down rates
temperature gradients across any other structure adversely affected (pipes, etc.)
sensitivity analysis for the rationale for choosing specific cool down rates.
stress levels and loads associated with the above cool down rates
total integrated neutron flux calculations and measurements specific to
actual parts in question and to reactors of similar design to Limerick.
calculation of resultant loss of RTndt due to above neutron flux
4. Provide a definition of Pressurized Thermal Shock and reference the document wherein that definition lies. Similarly provide definitions for "important to safety" and "safety related."
5. Give thicknesses and materials that neutron flux would have to penetrate between origin and affected structures. (For instance distance between fuel and beltline weld.)
6. Have any "test coupons" of affected materials been irradiated and tested from BWRs of design similar to Limerick? Provide results and documentation.

I, Marvin I. Lewis, certify that I am mailing these interrogatories to the entire Limerick mailing list, today, May 1, 1983.

Marvin I. Lewis. 5/1/83.

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