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November 2, 1964

THRU : Saul Levine, Chief, Test & Power Reactor Safety Branch
Division of Reactor Licensing
J. E. McEwen, Test & Power Reactor Safety Branch
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PEACH BOTTOM

This memorandum summarizes the results of a telephone call with Mr. V. S. Boyer on October 16, 1964 and of subsequent meetings at Bethesda on October 22 and October 29.

- (1) We indicated that we believed the logic used in connecting the signals from the detectors which sense high radiation level in the containment to the containment isolation system to be inadequate. This logic is presently arranged such that each of two channels of radiation monitoring has to work properly in order to effect containment isolation (i.e. 2 of 2 logic). We also indicated that the proposed testing schedule of once a year for the containment isolation system appears inadequate.

It is now our understanding that Philadelphia Electric plans to add a second radiation monitoring channel in the waste gas stack such that they will have 2 of 3 logic to initiate containment isolation in the event of a high radiation condition. The testing schedule will be modified to include radiation monitoring equipment tests monthly and containment isolation equipment test quarterly. They have also modified the monitoring equipment to include alarms which indicate abnormal sample gas flow, loss of instrument power, or loss of background signal. We have reviewed the proposed changes, including detailed circuitry, and are satisfied that they represent a significant and acceptable improvement to this system.

- (2) Some potential deficiencies in the reactor safety system were identified wherein a single component failure could render this system inoperable. It was agreed that Mr. V. A. Moore of the Safety Standard Branch would discuss these deficiencies with General Atomics instrumentation personnel in order to resolve them in an expeditious manner. Mr. Moore has kept us informed of the status of his negotiations with General Atomics and we are satisfied that proper action is being taken to eliminate any deficiencies which have been identified.

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- (3) We informed Mr. Boyer that we are interested in their submitting results of the analysis concerning the multiple rupture of steam generator tubes even though we had not previously requested this information. Mr. Boyer indicated that we would have to discuss this matter with General Atomics before he could agree to presenting the information without a formal request. General Atomics may not wish to present this information without a formal request since they consider the simultaneous failure of more than one steam generator tube an incredible occurrence.
- (4) We indicated that we did not believe that the plant surveillance program for control rods was adequate. In particular, we felt that a complete hot cell investigation of a control rod was needed before the presently planned examination at the end of the first core life. Mr. Boyer has informed us that they will expand the surveillance program to include a hot cell examination at the end of one equivalent operating year (approximately 1/3 of core burnup). We believe that the addition of a complete hot cell test after one equivalent year's operating history to the control rod surveillance program makes this program adequate.

Philadelphia Electric has stated that they will formally resolve the above items by amending their present application. They intend to submit this amendment approximately one week prior to the scheduled November ACRS meeting so that we may inform the Committee of the resolution of these items which appear as reservations in our present report.

At the meeting of October 29, we requested an explanation of the release model used in establishing the escape of fission products to the containment following an accident. Both Mr. Boyer and Mr. H. Friend of Bechtel stated that they did not understand this model and the justification for it well enough to feel confident explaining it to us. They stated that all of the work concerning this model was done at General Atomics and that their organizations accepted it as being reasonable and accurate. They also pointed out that General Atomics had written those portions of the FHSR associated with a description of this model. Phone calls made during the meeting to General Atomics convinced us that the people applying the model (in the form of a computer code) for hazards evaluation were not the people responsible for developing it. Both Mr. Boyer and Mr. Friend offered to assist in contacting the proper people at General Atomics who could explain the details of the model to us. We indicated that in view of the apparent complexities associated with this release model we would prefer to review available information in some detail before discussing this matter directly with General Atomics.

bcc: E. G. Case, DRL
 J. E. McEwen
 Suppl. ✓

DRL Reading - T&PRSB Reading

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