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Subj.	Date January 3, 1979

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I. ACCOMPLISHMENTS

- A. The end of the year commitments on the SOP Criteria Project and the Component Loading Specifications have both been met. The BOP Project milestone events were all met, with one exception, and several new documents were added to the list and completed during the course of the year. The Component Loading Specification commitment of 90Z on-time completion was exceeded and close to 100Z. Detailed status reports on both of these Plant Design projects will be issued the first week in January.
- 3. The Plant Design commitment to Phase I of the Standardization Program was completed as scheduled. All text sections and drawings for the Reactor Coolant System Requirements were issued as scheduled including resolution of comments by the affected hardware units. In addition, the standard AIRS document has also been issued following negotiation of the data with all input suppliers and the SMA Unit. All Component Loading Specifications and Functional Specifications have been issued and comments resolved from Component Engineering and Mt. Vernon. We now have a complete package of Plant Design requirements for all FOB components included in the Phase I Freeze Program. In addition, the Phase II and III schedules for release of Plant Design Requirements Specifications remain on schedule. We are now in the process, on these systems, of negotiating and resolving comments on the System Requirements Specifications leading up to freezing of this documentation in early 1979. The Phase IV Analysis Freeze effort is somewhat behind schedule due to higher priority work at the end of the year. The overall program plan and list of the calculations to be included in the Phase IV Freeze has been issued and this program will now get underway. We are targeting to obtain a definition of which calc packages can be frozen by 3/31/79.

C. A number of meetings between the Nuclear Industry and the NRC have culminated in a modified NRC ATWS position. The major points of the new NRC position are:

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- Operating plants and plants in an advanced stage of construction (e.g., WPPSS) will only be required to add diverse scram instrumentation and demonstrate critical valve operability.
- Plants not nearing commercial operation will be required to install additional safety valves.

The details of this position, given in a supplement to NUREC-0460 are expected to be received before the January 4 ACRS Hearing. However, based on the information received to date, a significant amount of design work will be required during 1979. A detailed status report on ATHS resolution will be published the first week of January.

D. A review of the PHM and CM design requirements was performed to evaluate potential changes to facilitate the hardware/software design. In December, CI/A's were processed on the RPS-II CM requirements to:

- Relax the time response requirement to avoid a software redesign.
- Define the two Ci flux inputs as being identical in order to shorten the qualification testing time.
- Define the flux value used to bypass the offset calculation as p_a rather than p_a to avoid a zero divide situation if the two inputs are not identical.

In support of the PHM, work has been done to more fully define limits on the sterm in the DNBR trip that are more compatible with hardware capability. A CI/A will be processed by January 5, 1979 to implement the added constraint.

- E. The final meeting of the Mark C Design Review Board was held this month to review the generic applicability of the Mark C core components previously approved for release on TVA. The DRB agreed to approve the design for generic application upon satisfactory completion of the outstanding action items. The final DRB report is currently scheduled for submittal to the Department Manager for signature by March 1, 1979.
- F. An Engineering Department commitment to the Nuclear Parts Center was established to prepare a master list of safety related components and piece parts and to define functional components for all equipment on B&W backlog contracts. The workscope was divided into three separate phases, and manhour estimates were received for each phase from Mechanical Equipment, Pumps and Drives, Fluid Systems and CSI Systems. We now have a firm commitment in place to assist the Muclear Parts Center in determining functional component classification across all the backbg contracts.

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II. DISPOSITION OF PREVIOUS PROBLEMS

- A. A dual serpoint for control of AFW and design improvements, to include cavitating venturis and automatic piggyback for the HPT system have been identified as alternatives to resolve the 205 Small Break Problem. Design, equipment fabrication, testing and installation costs across the 205 Product line are now being developed for both design alternatives to achieve a decision early in 1979 for the overall program resolution. A cost impact picture is presently anticipated to be complete by 3/01/79. Additional analysis for a SLB with a forty foot AFW level and a small LOCA with the improved HPI system performance are also to be completed and documented leading to a final decision on resolution of this problem by 3/31/79.
- 5. Documentation of both analytical and test data has been prepared and submitted to TECo to support the interim and long-term AFW control system design. Plant operation was evaluated and shown to be acceptable during normal reactor trip events and other anticipated transients such as the loss of offsite power and the loss of main feedwater with OTSC levels controlled at a 35" level. In addition, the consequences resulting from the operator's failure to control steam generator levels at 35 inches, in the interim, has also been evaluated and shown to be acceptable. Additional questions have also been received from TECo, primarily in the small break area. Efforts will be initiated to prepare responses prior to February 15 to support a TECo commitment to supply a problem summary report to the NRC.

III. NEW PROBLEMS

A. Small LOCA for the 177FA plants have always been evaluated assuming a loss of offsite power. This assumption results in an RC pump coastdown, a loss of main feedwater, and reliance on auxiliary feedwater. The validity of the assumption to produce the most limiting LOCA consequences (small break) is now being evaluated. Small LOCA analysis are now planned on the 205FA Plant LOCA model assuming the RC pumps are operative, main feedwater is available, and the ICS functions to maintain OTSG levels at the two-foot elevation. If these analysis do not produce acceptable and less conservative results than those assuming a loss of offsite power, a potential will exist for extensive reanalysis efforts in the small break area. Equipment design changes on the backlog 177FA plants may also be required to assure that AFW is added to the steam generators during post LOCA conditions. This problem is currently being evaluated by ECCS Analysis.

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	 IV. AVAILABILITY PROGRAM A. A revised Availability Improvement Program for High Chlorides in the RCS received R6D Management approval and manhour allocation. The outline for this revised program is as follows: Monitor the chloride problem noting any new trends and develop understanding for those trends. Review data and information available within NPGD from demineral- 									
		ize eng eff con	r resin manu ineers to ga ective probl siderations:	facturers, per in better proj em solutions,	tinent utilities of blem definition and including the fol	nd devel Llowing	specific	ible		
		۰.	 Possible relationships between demineralizer resin loading age and tendency for chloride spiking occurrences. 							
		ь.	b. Chemical interactions which promote chloride spiking.							
		c.	 c. Problem status and conclusions as viewed by demineralizer resin manufacturers. d. Utility corrective actions on this problem and effectiveness of same. 							
		d.								
		3. Dev add	Develop a final report by April 1, 1979 based on above activities, addressing the following:							
		4.	a. Problem definition.							
		ь.	 b. Recommendations to alleviate the problem. c. Definitive criteria on resin bed changeout. 							
		c.								
		d.	d. Recommended further activity on the problem, if any.							
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