

**AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL**  
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CONTROL NO: 11455

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FROM: Carolina Power & Light Co Raleigh, N.C. 27602 E.E. Utley			DATE OF DOC 11-4-74	DATE REC'D 11-8-74	LTR X	TWX	RPT	OTHER
TO: Mr. Karl R. Goller			ORIG 3 signed	CC	OTHER	SENT AEC PDR <u>XX</u> SENT LOCAL PDR <u>XX</u>		
CLASS	UNCLASS XX	PROP INFO	INPUT	NO CYS REC'D 40		DOCKET NO: 50-261		

DESCRIPTION: Ltr re our 10-2-74 ltr....  
furnishing addl info re ECCS evaluation for  
H.B. Robinson Unit 2 Plant including Proposed  
Tech Specs with Attachments Figures 1 & 2...

ENCLOSURES:

PLANT NAME: H.B. Robinson Unit 2

**Do Not Remove**

**FOR ACTION/INFORMATION**

DHL 11-9-74

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**INTERNAL DISTRIBUTION**

<u>REG FILE</u> AEC PDR OGC, ROOM P-506A MUNTZING/STAFF CASE GIAMBUSSO BOYD MOORE (L) (BWR) DEYOUNG (L) (PWR) SKOVHOLT (L) GOLLER (L) P. COLLINS DENISE REG OPR FILE & REGION MORRIS STEELE	<u>TECH REVIEW</u> SCHROEDER MACCARY KNIGHT PAWLICKI SHAO STELLO HOUSTON NOVAK ROSS IPPOLITO TEDESCO LONG LAINAS BENAROYA VOLIMER	<u>DENTON</u> GRIMES GAMMILL KASTNER BALLARD SPANGLER  <u>ENVIRO</u> MULLER DICKER KNIGHTON YOUNGBLOOD REGAN PROJECT LDR <b>DITTMAN</b> HARLESS	<u>LIC ASST</u>  DIGGS (L) GEARIN (L) GOULBOURNE (L) KREUTZER (E) LEE (L) MAIGRET (L) REED (E) SERVICE (L) SHEPPARD (L) SLATER (E) SMITH (L) TEETS (L) WILLIAMS (E) WILSON (L)	<u>A/T IND</u> BRAITMAN SALTZMAN B. HURT  PLANS MCDONALD CHAPMAN <del>DUBE</del> E. COUPE  D. THOMPSON (2) KLECKER EISENHUT <b>VARGA</b>
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**EXTERNAL DISTRIBUTION**

1 - LOCAL PDR Hartville, S.C.	1 - NATIONAL LABS	1 - PDR-SAN/LA/NY
1 - TIC (ABERNATHY) (1)(2)(10)	1 - ASLBP(E/W Bldg, Rm 529)	1 - BROOKHAVEN NAT LAB
1 - NSIC (BUCHANAN)	1 - W. PENNINGTON, Rm E-201 GT	1 - G. ULRIKSON, ORNL
1 - ASLB	1 - B&M SWINEBROAD, Rm E-201 GT	1 - AGMED (RUTH GUSSMAN) Rm B-127 GT
1 - Newton Anderson	1 - CONSULTANTS	1 - R. D. MUELLER, Rm E-201 GT
16 - ACRS HOLDING SENT TO LIC. ASST. S. TEETS 11-9-74	1 - NEWMARK/BLUME/AGBABIAN	



Carolina Power & Light Company

November 4, 1974

Regulatory File Cy

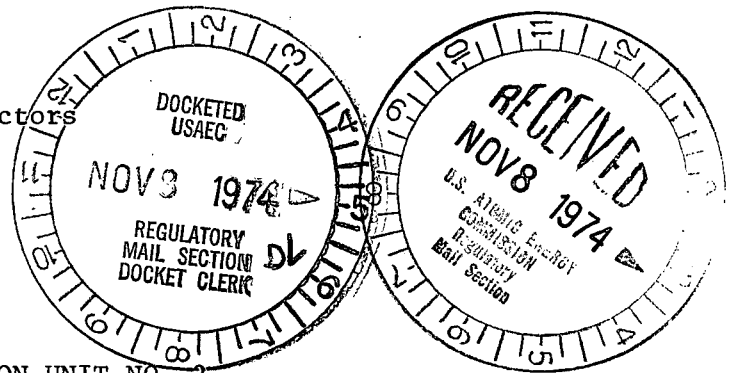
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File: NG-3514 (R)

Serial: NG-74-1316

Mr. Karl R. Goller  
Assistant Director for Operating Reactors  
Directorate of Licensing  
Office of Regulation  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. Goller:



H. B. ROBINSON UNIT NO. 2

LICENSE DPR-23

REVIEW OF APPENDIX K ANALYSIS AND TECHNICAL SPECIFICATIONS  
FOR CONFLICTS WITH PRESENT TECHNICAL SPECIFICATIONS

In accordance with your letter of October 2, 1974, we have conducted an additional review of the ECCS evaluation submitted for the H. B. Robinson Unit No. 2 Plant on October 3, 1974, including proposed Technical Specifications. We have found no discrepancies requiring additional documentation in the Appendix K analysis, but do have a conflict between the proposed Technical Specifications to meet the requirements of the Appendix K analysis and the present Technical Specifications now in force.

This conflict arises from the increase in minimum water volume required to provide a sufficient flow of water from the accumulators during refill and reflood, and thus maintain the peak clad temperature below 2200°F. This water volume, as found on Page 2.6 of the Robinson Appendix K evaluation report, is 825 ft<sup>3</sup>. The minimum water volume required by the present Technical Specifications is 775 ft<sup>3</sup>. The total accumulator volume is 1200 ft<sup>3</sup> so that the increase in water volume is of the order of 4.2% of the total volume of the tank.

Westinghouse Electric Corporation was asked to study the effects of an increase in accumulator water level on the Interim Acceptance Criteria ECCS evaluation for operating Westinghouse PWR's. The study considered two representative loss of coolant accident transients which served as a basis for assessing the clad temperature changes resulting from increased accumulator water volume for various reflood conditions.

Mr. Karl R. Goller

- 2 -

November 4, 1974

The results of this study are summarized in Figure 1 where the parameter  $ZD_0$  represents the downcomer water level for the worst break when the accumulators were empty.

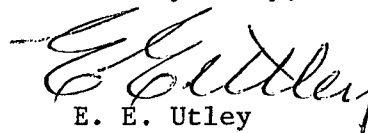
For the Carolina Power & Light Company Plant, the accumulator water volume between IAC and Appendix K analyses increased by 50 cubic feet and, in the IAC analysis,  $ZD_0$  for the worst break was equal to 4.5 ft. Figure 1 shows that a 50 cubic feet increase in accumulator water volume does not result in an ECCS penalty using the IAC model. Therefore, the accumulator water volume should be changed to be consistent with Appendix K Technical Specifications.

Differences in peaking factor limits were also investigated, and the peaking factor limits that will be met at 100% power are shown on the attached Figure 2. Peaking factor limits below 100% power must be calculated on a case by case basis through comparison of the Interim Acceptance Criteria and Appendix K Criteria Technical Specifications.

We are presently operating the Robinson Plant with accumulator water levels consistent with the Interim Acceptance Criteria, as directed by your office, and intend to continue to do so until the AEC indicates their approval of increasing the water volume to the amount consistent with Appendix K analyses, as recommended and justified in this letter. This, we hope, will avoid confusion and possible citations for violations of Technical Specifications, as well as, eliminate excessive modifications to operating procedures and attendant inplant reviews.

We anticipate your review and response to the above information.

Yours very truly,



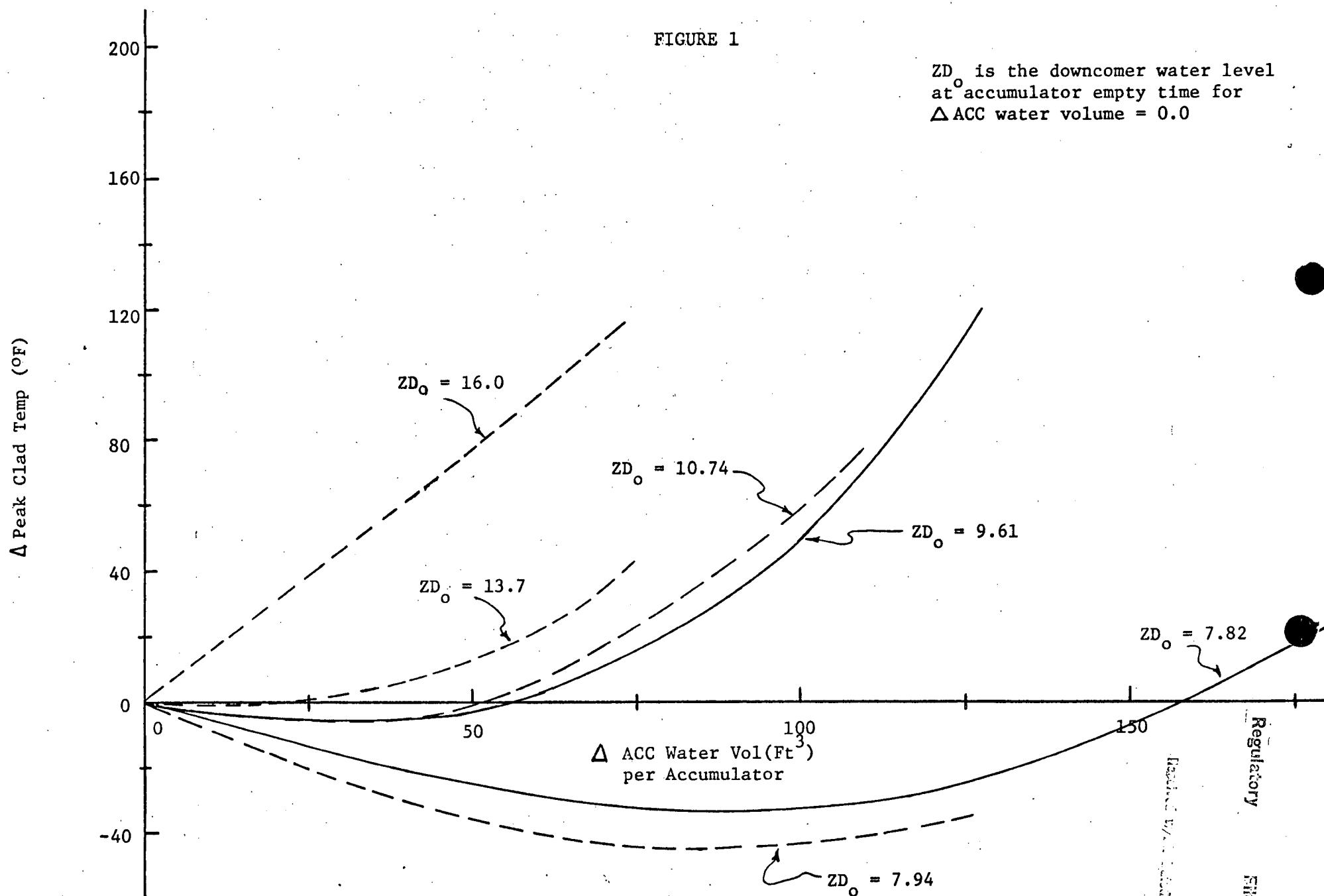
E. E. Utley  
Vice-President  
Bulk Power Supply

DBW:mvp  
Attachments

cc: Messrs. N. B. Bessac  
W. B. Howell  
J. B. McGirt  
D. V. Menscer  
N. C. Moseley  
D. B. Waters

FIGURE 1

$ZD_o$  is the downcomer water level  
at accumulator empty time for  
 $\Delta \text{ACC water volume} = 0.0$



Revised 11/11/74

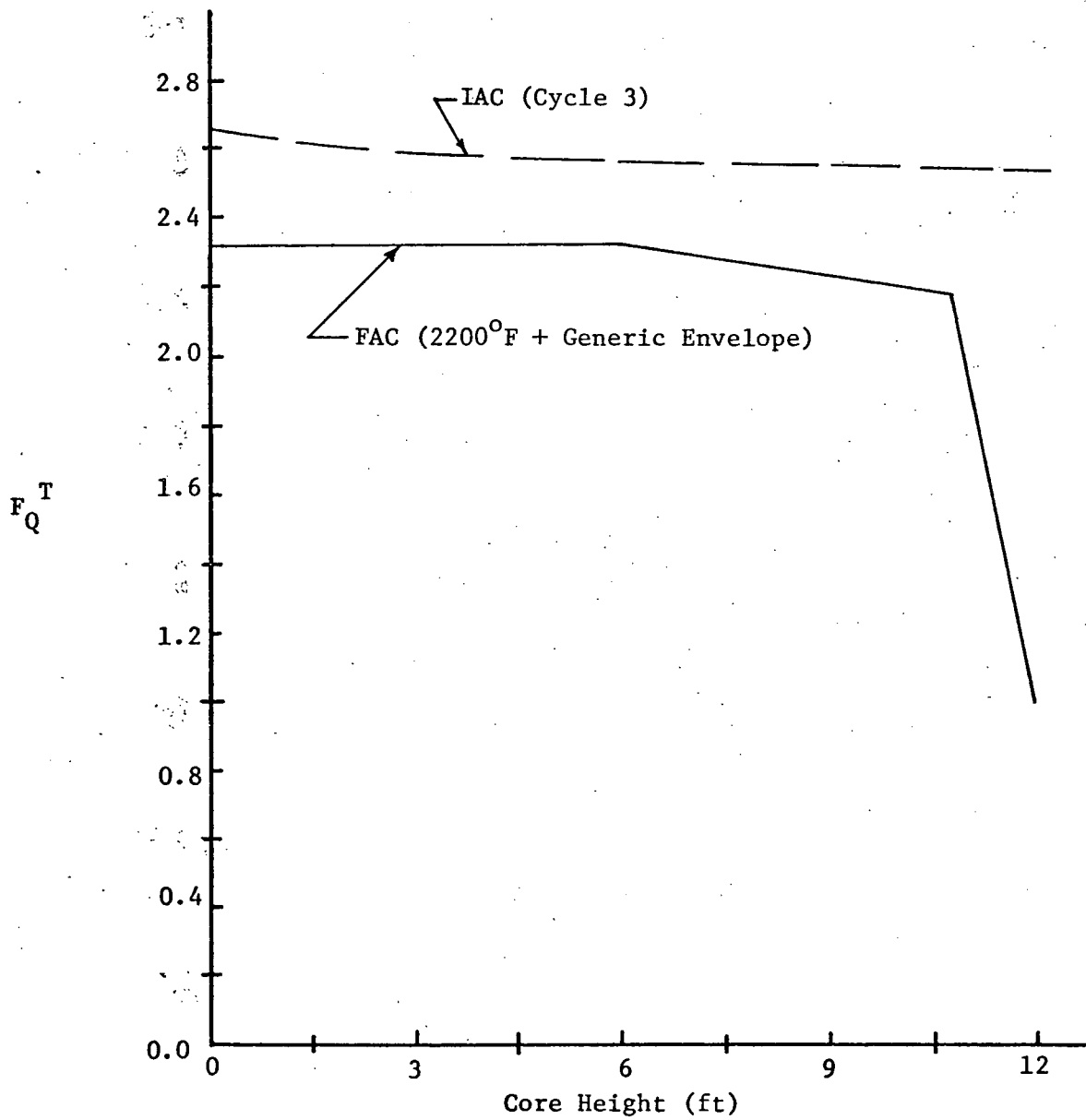
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Cycle 3

11-4-74



Limiting  $F_Q^T$  at 100% Power

FIGURE 2