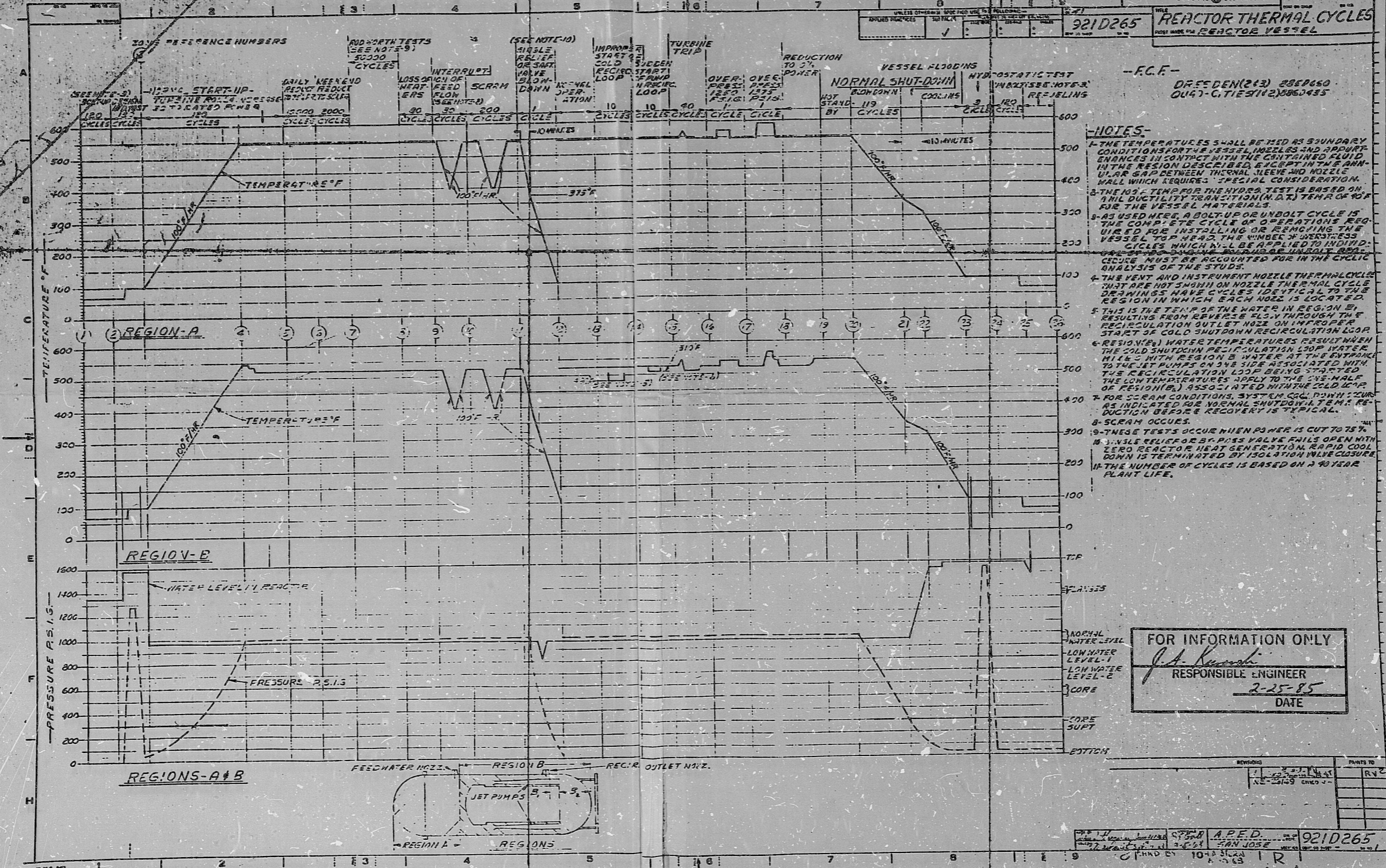


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GENERAL ELECTRIC

921D265

REACTOR THERMAL CYCLES  
REACTOR VESSEL



**NOTES-**

- 1- THE TEMPERATURES SHALL BE USED AS BOUNDARY CONDITIONS FOR THE VESSEL, NOZZLES AND APPURTENANCES IN CONTACT WITH THE CRITICAL FLUID IN THE REGION DESCRIBED, EXCEPT IN THE ANNULAR GAP BETWEEN THE CAL HEAT EXCHANGER WALL WHICH REQUIRES SPECIAL CONSIDERATION.
- 2- THE TEMPERATURE FOR THE HYDRA TEST IS BASED ON 1 MIL DUCTILITY TRANSITION (M.D.T.) TEMPERATURE FOR THE VESSEL MATERIALS.
- 3- AS USED HERE, A BOLT OR UNBOLT CYCLE IS THE COMPLETE CYCLE OF OPERATIONS REQUIRED FOR INSTALLING OR REMOVING THE VESSEL TO PERFORM THE WELDING OPERATIONS WHICH WILL BE APPLIED TO INDIVIDUAL BOLTS OR UNBOLTS. BOLT OR UNBOLT CYCLES MUST BE ACCOUNTED FOR IN THE CYCLIC ANALYSIS OF THE STUDS.
- 4- THE VENT AND INSTRUMENT NOZZLE THERMAL CYCLES THAT ARE NOT SHOWN ON NOZZLE THERMAL CYCLE DRAWINGS HAVE CYCLES IDENTICAL TO THE REGION IN WHICH EACH NOZZLE IS LOCATED.
- 5- THIS IS THE TEMP OF THE WATER IN REGION B, RESULTING FROM REVERSE FLOW THROUGH THE RECIRCULATION OUTLET NOZZLE ON IMPROPER START OF COLD SHUTDOWN RECIRCULATION LOOP.
- 6- REGION (A) WATER TEMPERATURES RESULT WHEN THE COLD SHUTDOWN RECIRCULATION LOOP WATER MIXES WITH REGION B WATER AT THE ENTRANCE TO THE JET PUMPS ON ONE SIDE ASSOCIATED WITH THE RECIRCULATION LOOP BEING STOPPED. THE LOW TEMPERATURES APPLY TO THE OTHER HALF OF REGION (B), ASSOCIATED WITH THE COLD SHUTDOWN RECIRCULATION LOOP.
- 7- FOR SCRAM CONDITIONS, SYSTEM COLD DOWN CURVE SHOULD BE USED FOR NORMAL SHUTDOWN. SCRAM OCCURS BEFORE RECOVERY IS TYPICAL.
- 8- SCRAM OCCURS.
- 9- THESE TESTS OCCUR WHEN POWER IS CUT TO 75%.
- 10- SINGLE RELIEF OR SAFETY VALVE SHALL OPEN WITH ZERO REACTOR HEAT GENERATION. RAPID COOL DOWN IS TERMINATED BY ISOLATION VALVE CLOSURE.
- 11- THE NUMBER OF CYCLES IS BASED ON A 40 YEAR PLANT LIFE.

FOR INFORMATION ONLY  
*J. A. Kuroki*  
 RESPONSIBLE ENGINEER  
 2-25-85  
 DATE

SI APERTURE CARD

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PDR RIDS

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