ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9003300104 DOC.DATE: 89/12/31 NOTARIZED: NO DOCKET #
FACIL:50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
AUTH.NAME AUTHOR AFFILIATION
MORGAN,R.E. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: "1989 Changes to Facility Rept." W/900323 ltr.

DISTRIBUTION CODE: IE47D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 8
TITLE: 50.59 Annual Report of Changes,Tests or Experiments Made W/out Approv

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-1 LA	1	0	PD2-1 PD	5	5
	LO,R	1	0			
INTERNAL:	AEOD/DOA	1	1	AEOD/DSP/TPAB	1	1
	NRR/DLPQ/LHFB11	1	1	NRR/DOEA/OEAB11	1	1
	NRR/DREP/PRPB11	2	2	NUDOCS-ABSTRACT	1	1
	REG FILE 02	1	1	RGN2 FILE 01	1	1
EXTERNAL:	LPDR	1	1	NRC PDR	1	1
	NSIC	1	1			

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 19 ENCL 17

CP&L
Carolina Power & Light Company

ROBINSON NUCLEAR PROJECT DEPARTMENT
POST OFFICE BOX 790
HARTSVILLE, SOUTH CAROLINA 29550

MAR. 23 1990

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

RNPD/90-0925
(10CFR50.59)

H.B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
1989 CHANGES TO THE FACILITY REPORT

Gentlemen:

Carolina Power and Light Company (CP&L) provides this report of changes to the facility as described in Amendment 8 to the Updated Final Safety Analysis Report. The enclosure is submitted as specified in 10 CFR 50.59(b)(2) and contains a brief description of any changes, tests, and experiments, including a summary of the safety evaluation of each.

Very truly yours,

R. E. Morgan
General Manager
H. B. Robinson S. E. Plant

RDC:dwm

Enclosure

cc: Mr. S. D. Ebneter
Mr. L. W. Garner

IE47
1/1

AMENDMENT 8 CHANGES AS DESCRIBED IN THE SAFETY ANALYSIS REPORT

A synopsis of the changes to the facility as described in Amendment 8 of the Final Safety Analysis Report is provided below. These changes have been reviewed in accordance with Plant procedures and none have been determined to constitute an unreviewed safety question as defined by 10 CFR 50.59.

Plant Modification No. 872, Excore Neutron Flux Detector System Addition

DESCRIPTION: This modification provided two environmentally and seismically qualified channels for the normal and post accident monitoring of ex-core neutron flux. The channels are independent of one another and of the existing channels. Each channel covers the full range of expected flux, from reactor shutdown to full power operation. This modification was implemented to support commitments regarding Regulatory Guide 1.97.

SAFETY EVALUATION: This modification involved installation of new monitoring equipment which does not interface with any active safety device. The equipment and all equipment with which it interfaces is for monitoring only, and has no control or protective functions. None of the Plant's Technical Specifications apply directly to the Ex-Core Neutron Flux Monitoring System. However, a change to Technical Specification 5.3.1.6, which limits the amount of enriched fissionable material permitted on-site in the form of "fabricated neutron flux detectors", was revised prior to delivery of the modification. This specification was changed to account for the uranium in the new detectors. Minor clarification was required to the FSAR, but no substantive change or modification to safety discussions was made.

FSAR REFERENCE: Page 7.4.1-3

Plant Modification No. 1018, Auxiliary Feedwater - NPSH

DESCRIPTION: This modification was performed to assure that adequate net positive suction head is available to the auxiliary feedwater (AFW) pumps. This modification replaced the existing AFW pump suction piping with a revised design.

SAFETY EVALUATION: The AFW piping was removed when the Plant was in cold shutdown condition. The new piping, which was routed in approximately the same location as the original piping, was designed to reduce the piping line losses (pressure drops) when the AFW pumps are running. The piping hydraulic analysis has demonstrated that there is adequate NPSH available to the AFW pumps with no change to the Technical Specification CST water level requirement.

FSAR REFERENCE: Pages 3.2.1-1, 3.2.2-11; 10.1.0-5, 10.1.0-6

Plant Modification No. 1021, Service Water Isolation to the Turbine Building

DESCRIPTION: This modification revised the automatic closure circuit of the Service Water (SW) Supply Valves V6-16A, B, & C to the Turbine Building. This change was required since the existing circuit for automatic Turbine Building Service Water isolation could be disabled by a single failure of the Safeguards System DC power supply to a single relay control power circuit.

SAFETY EVALUATION: Should a single failure of the Safeguards System DC power supply occur in conjunction with the loss of an Emergency Bus, the possibility existed for two SW Pump operation supplying a system requiring more flow than the combined SW Pump rated capacity. Although procedural provisions existed for Operator intervention to manually isolate the SW supply to the Turbine Building, this modification provided additional protection for the SW pump, and reduced the probability for Operator intervention. This modification also corrected an existing problem of V6-16A, B, and C motor operators continuing to energize to close their valve after their valve has closed via an automatic trip signal. This modification did not require a change to the Technical Specifications, nor did it constitute an unreviewed safety question.

FSAR REFERENCE: Pages 7.3.1-1, 7.3.1-8, 9.2.1-3, Figures 7.2.1-18, 7.2.1-24

Plant Modification 1024, Unit No. 2 115 kv Switchyard Alarm Setpoint

DESCRIPTION: This modification involved the revision of the "hi-lo" setpoints for the 115 kv switchyard voltage alarm monitor. The alarm alerts the Operator to an abnormal voltage condition existing on the normal AC power feed.

SAFETY EVALUATION: The voltage alarm monitor does not have any control function, is not connected to any circuits that can cause an accident and is not connected to any safety equipment. Thus, this change did not constitute an unreviewed safety question. Section 8.2.2 of the FSAR delineates the voltage schedule for the Off-Site Power System and the voltage monitor alarm setpoints, which were changed by this modification.

FSAR REFERENCE: Page 8.2.2-1

Engineering Calculation 82226/03-M-01-F, revision 2, Revised Fuel Oil Capacity

DESCRIPTION: A revised Fuel Oil calculation considered Emergency Diesel Generator (EDG) efficiency and engine auxiliary power loads. As a result, the quantity of fuel oil as stated in the FSAR required to operate one EDG at design capacity for seven days was increased.

SAFETY EVALUATION: Amendment 124 to the Operating License incorporated the revised minimum fuel oil capacity. Therefore, this change did not constitute an unreviewed safety question.

FSAR REFERENCE: Page 8.3.1-5

Administrative change to Quality Assurance Program Requirements

DESCRIPTION: Changes to the FSAR were made to provide a current description of the QA Program.

SAFETY EVALUATION: This FSAR Change is editorial in that it removed inconsistencies, provided the latest policy statement appropriate for the current organization, and included a revised Corporate QA Manual table of contents. Therefore, this change did not constitute an unreviewed safety question.

FSAR REFERENCE: Pages 1.8.0-5, 13.1.1-5, 17.2.0-1, 17.2.2-1 through 17.2.2-6, 17.2.18-1.

Administrative Change to RCS Summary Description

DESCRIPTION: An editorial correction was made to the FSAR Summary Description of the RCS coolant flow path. The basis for this change is WCAP-8568, which states that leakage across the Reactor Pressure Vessel nozzles is one of the core bypass flowpaths.

SAFETY EVALUATION: Other than correcting the description of a flowpath, nothing else was changed. The flow rate for core cooling remains the same. Therefore, this was an editorial change, and did not constitute an unreviewed safety question.

FSAR REFERENCE: Page 5.1.0-1

Memorandum NF-89-063, I. E. Bulletin 86-05 "Main Steam Safety Valve Test Failures and Ring Setting Adjustments"

DESCRIPTION: I.E. Bulletin 86-05 implies that the Main Steam Safety Valve (MSSV) may not function consistent with the Safety Analysis. A conservative envelope for MSSV behavior was established. A change to the FSAR was made to note the acceptability of the more conservative envelope of Main Steam Safety Valve operation.

SAFETY EVALUATION: An evaluation of the FSAR Chapter 15 events demonstrated that the acceptance criteria for each event, as defined in Chapter 15, continued to be met. Therefore, this change did not constitute an unreviewed safety question.

FSAR REFERENCE: Pages 15.0.8-2, 15.0.R-1, 15.2.2-2, 15.2.R-1.

Administrative Change to the Boron and Shutdown Margin

DESCRIPTION: An editorial change was made to the FSAR to change the boron and shutdown margin to match the Technical Specification (page 3.2-1, item c.) and Plant procedures.

SAFETY EVALUATION: The changes are consistent with the practices established by the Technical Specifications and Plant procedures. The changes are administrative in nature, and did not constitute an unreviewed safety question.

FSAR REFERENCE: Page 9.3.4-11, 9.3.4-21, 15.4.1-1, 15.4.6-2.

Administrative Change to Condensate Storage Tank Capacity - Emergency Feedwater Source

DESCRIPTION: 132,000 gallons are normally stored in the Condensate Storage Tank (CST). However, only 35,000 gallons are required to be available to supply the Auxiliary Feedwater Pumps as an Emergency Feedwater source. The FSAR was revised to reflect the CST required capacity rather than the normal capacity.

SAFETY EVALUATION: This FSAR change appropriately reflects the Emergency Feedwater Source capacity that will be available to the AFW pumps under all accident conditions. The 35,000 capacity is required by the Technical Specifications. Although 132,000 gallons is normally available, the presence of some non-Q piping attached to the CST prevents credit being taken for that amount. This change did not reduce the available margin of safety for any accident since only 35,000 gallons is required, and the Service Water System will continue to provide backup as an Emergency Feedwater source. Therefore, this change did not constitute an unreviewed safety question.

FSAR REFERENCE: Page 10.4.8-4

Engineering Evaluation No. EE-89-054, Separation of the RHR Pump Pit Compartment

DESCRIPTION: Information presented in the Safety Injection/Residual Heat Removal Design Basis Document stated that the Engineered Safeguards Systems were designed to tolerate a single failure during the period of recovery following an accident without loss of their protective functions. The RHR Pump Pits were found to be unprotected from this single failure (flooding) due to the existence of a pipe connecting the two pump compartments. In order to comply with the design basis of the Plant, the pipe was blocked, thus providing pit separation and meeting the single failure criteria.

SAFETY EVALUATION: Blocking the pipe penetration in the bottom of the RHR pit restored the RHR system to its appropriate design. A review of the original FSAR did not reveal any references to the flowpath between the compartments. However, review of the Updated FSAR figures did in fact show the pipe. Apparently, the existence of the pipe was discovered and included in the UFSAR during the 1982 update. Restoring the system to its original design ensures that redundancy and segregation of instrumentation and components exists to assure that postulated malfunctions will not impair the ability of the system to meet the design objective.

FSAR REFERENCE: Figures 1.2.2-2, 1.2.2-4

Plant Modification No. M-1035, Replacement of Timing Relays Associated With Engineering Safety Feature Actuation Sequence (ESFAS)

DESCRIPTION: This modification replaced existing electropneumatic timing relays associated with ESFAS equipment with digital timing circuits. New timing circuits were required in order to provide accurate timing intervals for sequencing emergency loads and prevent shedding the emergency buses from off-site power, starting the Emergency Diesel Generators, and resequencing the loads.

SAFETY EVALUATION: This modification was necessary because the existing ESFAS was required to sequence accident mitigating motors, and the evolution was beyond the analysis in FSAR Chapter 15. The worst case single failure mode would be a loss of off-site power/safety injection signal concurrent with a line to line fault on one of the cables supplying AC power to the new control relays. The failure effects of this scenario is that the circuit breaker would trip for the affected train and the actuation sequence would not occur for that train. The redundant train would be available for operation in order to ensure safe shutdown of the plant.

FSAR REFERENCE: Pages 8.3.1-8, 8.3.1-9, 8.3.1-19

Plant Modification No. 992, Condensate Polisher Sample Cooler Cooling Water

DESCRIPTION: The purpose of this modification was to provide colder cooling water to the condenser on the Condensate Polisher Sample Cooler. This was necessary due to a combination of high Service Water temperature during the summertime and restricted flow which did not adequately allow the Cooler to produce the required sample bath temperature which was necessary for accurate sample analysis.

SAFETY EVALUATION: The portion of the Service Water system where the supply and return lines to the Sample Cooler were replaced were in the non-Q portion of the system. No safety related portions of the Service Water System or other safety related equipment or components were affected.

FSAR REFERENCE: Figures 9.2.1-1, 9.2.3-1

Temporary Plant Modification No. TM-89-708, Post Accident Sample System Oxygen Analyzer Bypass

DESCRIPTION: This Temporary Modification installed tubing to bypass the Post Accident Sample System (PASS) oxygen analyzer, which had developed unrepairable leaks. Permanent removal of the oxygen analyzer is scheduled during the 1990 refueling outage.

SAFETY EVALUATION: The PASS is used for monitoring purposes only, and is not a safety related system. The oxygen analyzer is not used, and the system will operate with the analyzer bypassed. The Technical Specifications do not address the PASS.

FSAR REFERENCE: Pg. 9.3.2-5b, 9.3.2-5e, Figure 9.3.2-2.

Engineering Evaluation No. EE-89-112, Upgrade of CVCS Spent Fuel Pit (SFP) Cooling Filters With Pleated Elements

DESCRIPTION: This Engineering Evaluation changed the SFP Filter media from string-wound filters to a pleated fabric design. In addition, the rated flow rate of the SFP filters was revised, and pressure drop details were deleted from the FSAR description.

SAFETY EVALUATION: The filter upgrade was evaluated as not constituting an unreviewed safety question because the filters do not have any function in the Plant's response to any accidents discussed in chapter 15 of the FSAR. The filters serve to enhance the quality of water and promote long life of vital components.

FSAR REFERENCE: Pages 9.1.3-2, 9.1.3-6, 9.1.3-7

Plant Modification No. 1025, Steam Driven Auxiliary Feedwater Pump Flow Control Valve (FCV-6416)

DESCRIPTION: The purpose of this modification was to revise the Steam Driven AFW Pump flow control valve FCV-6416 setpoint such that specific conditions were met without operator action. The amount of water injected into fully pressurized steam generators (accident pressure 1133 psia) by the SDAFW pump was limited to 280-300 gpm, thus maintaining total AFW flow to the Steam Generator below the 1325 gpm accident analysis limit. The flow rate was previously set at 600 gpm, and controlled by the flow control valve. However, the valve did not have a safety related power source, and credit could not be taken for valve operation during an accident. Therefore, the valve was manually restricted to achieve 280-300 gpm flow rate. Therefore, the potential for an overfeed to the Steam Generator was eliminated.

SAFETY EVALUATION: Review of the NRC SER's was performed to determine of any SER assumed use of the Steam Driven AFW pump at 600 gpm. This review revealed that the NRC did not give credit for the 600 gpm flow rate. There were no regulatory commitments or positions found that required the pump to output 600 gpm. Review of the Plant's Technical Specifications determined that no changes to that document were required.

FSAR REFERENCE: Pages 10.4.8-4, 15.1.5-9

Administrative changes to Plant Organization and Responsibility

DESCRIPTION: Administrative changes were made to reflect the current Plant organizational structure.

SAFETY EVALUATION: The Plant organization as reflected in Section 6 of the Technical Specifications was not affected by this change.

FSAR REFERENCE: Pages 13.1.1-1 through 13.1.1-5; Figure 13.1.1-1.