Consumers Power

POWERING MICHIGAN'S PROGRESS

Big Rock Point Nuclear Plant, 10269 US-31 North, Charlevoix, MI 49720

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Nuclear Regulatory Commission
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**DOCKET 50-155 - LICENSE DPR-6 - BIG ROCK POINT PLANT -
ANNUAL REPORT OF FACILITY CHANGES, TESTS AND EXPERIMENTS**

Attachment 1 to this letter is Consumers Power Company's Annual Report describing the modifications performed at Big Rock Point Plant during 1995 and up to mid-1996. Attachment 2 provides miscellaneous changes to procedures, programs and technical specifications reportable to the NRC per 10 CFR 50.59(b)(2).

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Plant Manager

CC: Administrator, Region III, USNRC
NRC Resident Inspector - Big Rock Point

ATTACHMENT

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ATTACHMENT 1

CONSUMERS POWER COMPANY
BIG ROCK POINT PLANT
DOCKET 50-155

ANNUAL REPORT - MODIFICATIONS

Submitted October 8, 1996

7 Pages

SC-94-018

REMOVAL OF ALTERNATE SHUTDOWN "NO CHARGE" ALARM

Specification Change 94-018 removed the alternate shutdown no charge alarm. Indication of high voltage and low voltage conditions are provided on the charger via the illumination of an associated red indicating lamp and also alarmed on alternate shutdown control panel C-31. The removed alarm was an optional no charge alarm - load sharing alarm module. A revision was initiated to remove the "no charge alarm" wording in the FHSR. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

This alarm was classified as a non-safety related function. Charger malfunctions will be detected during auxiliary operator rounds that occur at a minimum of once per shift and usually every two hours. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

SC-95-014

REMOVAL OF YARWAY DRUM LEVEL REPEATERS FROM MAIN CONTROL PANEL

These level indicators have been considered unusable because they are inaccurate, unreliable and misleading to operators. They are Q-Classified as important to reliability but not nuclear safety. They provide no trip function and have no safety function. The level indicators were removed from the main control panel. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

The removed level indicators have proven to be inaccurate and unreliable and serve no safety function. The removal will not create a different type accident and the consequences of a malfunction has not increased. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

SC-95-018

GENERIC LETTER 95-07 COMPLIANCE - DRILLING OF 1/4" HOLE IN RDS ISOLATION VALVES (CV-4180, CV-4181, CV-4182, CV-4183)

This Specification Change was made to comply with Generic Letter 95-07 (Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves). The modification vents the bonnets of the RDS Isolation Valves by drilling a 1/4" diameter hole in the reactor side flex wedge disc face of the valve. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

Certification was received from the manufacture (Anchor/Darling Valve Company) that drilling a pressure relief hole in the upstream side of the valves disc has no effect on the function or design/seismic qualifications of the valve except to make the valve unidirectional for venting of the bonnet. The modification does not change, degrade or prevent any required actions following a malfunction of equipment important to safety. The modification improves the probability that the valve will perform it's intended safety function. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

SC-96-011

MACHINING OF RDS VALVE STEMS TO REMOVE PITTING/ROUGHNESS

Machining 0.077" from the total diameter of each valve stem (RDS valves CV-4180 through CV-4183) removed any pitting/roughness that could cause packing leaks as part of a valve repair. A reference to this modification will be submitted with Revision 6 to the updated FHSR.

Safety Analysis Summary

New packing compensates for the decrease in diameter of the valve stems. The stems are considered a pressure retaining component. The original valve manufacturer (Anchor/Darling) was consulted regarding the machining and agreed that the modification will not decrease the strength of the stem or have an effect on the function of the valve. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

SC-96-016

EMERGENCY DIESEL GENERATOR FLOW INDICATOR

Failure of a self-priming cooling water pump (EDG) to prime during weekly surveillance testing (T7-28) initiated this change. To insure the EDG cooling water pump primes, service water valve VSW-29, has been slightly opened off the seat to provide a trickle flow. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

The service water system (SWS) provides water supply to the Emergency Diesel Generator (EDG) cooling water pump when offsite power is available. On loss of offsite power, fire protection system (FPS) water is available to backup this function. Loss of service water to the EDG cooling water pump as a result of a loss of offsite power event has been analyzed and safe shutdown capability is not adversely affected. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

FC-683A

ZEBRA MUSSEL CONTROL SYSTEM

A modification to the facility was performed to control the spread of zebra mussels in the screenhouse. The modification provides chemical injection into the screenhouse via the circulating water intake pipe. A biobox has been installed to monitor zebra mussel infestation. Corrosion coupons were also installed to establish baseline corrosion rates and to monitor corrosion within pipes after chemical injection is established.

Safety Analysis Summary

This modification does not allow the injection of chemicals into any plant systems. The chemical injection line is too small to have significant effects on flow through the 60" diameter intake pipe. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

FC-684B AND PROCEDURE CHANGE TO ALP-1.7

MAKEUP WATER CONTROL SYSTEM - ANNUNCIATORS

The makeup demin system has been removed and replaced by a new reverse osmosis system. The demineralized water storage tank high level alarm is still annunciated on the local demineralizer alarm panel as well as in the control room. The change required manually closing of valves, FC-684B addresses the response to the high level alarm and installed automatic valve closure. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

The safety evaluation concluded that the change did not constitute an unreviewed safety question.

ATTACHMENT 2

CONSUMERS POWER COMPANY
BIG ROCK POINT PLANT
DOCKET 50-155

ANNUAL REPORT - MISCELLANEOUS CHANGES

Submitted October 8, 1996

17 Pages

ADMINISTRATIVE CHANGES FROM TECH SPEC AMENDMENT 116

Administrative changes resulting from Technical Specification Amendment 116 dated 8/2/95. Replaced the word "shall" with "will" with regard to requirements for Chemistry and Health Physics Manager or Radiation Protection Supervisor. This change was made in Revision 5 to the updated FHSR submitted 4/28/95.

Safety Analysis Summary

This is non safety-related and an administrative only change. No safety evaluation was required.

ADDITION OF TEMPERATURE MONITORING POINTS FOR REDUNDANT CORE SPRAY HEADER

Specification Change (SC-93-013) added four (4) temperature monitoring points to monitor the Redundant Core Spray Header temperatures. Use of thermocouples to monitor temperatures of portions of the redundant core spray piping is a non-intrusive and passive means of obtaining temperature information. The FHSR revision is to note the additional monitoring added to the Redundant Core Spray line and reference the Specification Change. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

With the installation of these thermocouples, it can be reasonably assured that preemptive actions can be taken to ensure that the integrity of the redundant core spray line will be maintained. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

METEOROLOGICAL COLLECTION DATA CHANGE

Emergency Procedure EPIP-5A-2 was revised to reflect the different equipment used to obtain meteorological data (use of Dose Assessment PC with an internal modem versus use of the Silent 700 dial-up remote terminal). A change was also made to the FHSR. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

This revision reflects a change to more sophisticated technology and does not increase the probability of equipment malfunction. In fact, the new equipment is more reliable and easier to access. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

MAJOR RE-WRITE OF FHSR CHAPTER 8

Chapter 8, Electric Power, was revised to capture the results from previous inspections, including the Special NRC Electrical Distribution System Functional Inspection; and analyses conducted by the Nuclear Engineering and Construction Organization (NECO) between 1991 and 1994. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

Significant design changes have not occurred. The re-analyses have not exposed any system design weaknesses or significant system voltage concerns. The safety evaluation concluded that the change did not constitute an unreviewed safety question.

ORGANIZATION CHANGES

Administrative Procedure 3.1 was revised to reflect several organizational changes made: Reactor Engineering Department moved under Operations; and includes the system and roving engineers training requirements in the training matrix. This change was made in Revision 5 to the updated FHSR submitted 4/28/95.

Safety Analysis Summary

This is non safety-related and an administrative only change. The safety evaluation concluded that the activity did not constitute an unreviewed safety question.

CHANGE TO REACTOR CLEAN-UP SYSTEM

A revision was made to operating procedure SOP-3 and the FHSR to remove the concern regarding erosion of the heat exchanger tubes. The clean-up system regen/non-regen tube bundles were changed in 1972 from copper-nickel to stainless steel and neither the procedure nor the FHSR reflected this change to erosion resistance bundles. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

The use of stainless steel has decreased the probability of malfunctions or accidents due to it's erosion/corrosion resistance. The safety evaluation concluded that the activity did not constitute an unreviewed safety question.

WIDE RANGE MONITOR OPERABILITY

Various Operation and Administrative Procedures have been revised to provide statements designed to help operators maintain the wide range monitor readings within the 5% calibration limits. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

The safety evaluation concluded that the activity did not constitute an unreviewed safety question.

STATION POWER SYSTEM

The station battery load profile (EA-93-BAT1-01) was updated, and the load profile in the systems description manual (Volume 23, Chapter 28) and Procedure TR-65S (Station Battery Service Test) revised. The profile was revised because the stack obstruction lighting load which was originally assumed to be 10 amps has been measured to be 22 amps. The station batteries are adequately sized to handle the additional 12 amp load. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

Changing the load profile does not change the function of equipment. The station battery is adequately sized to handle the loads. The safety evaluation concluded that the activity did not constitute an unreviewed safety question.

TRAINING DEPARTMENT ORGANIZATION/RESPONSIBILITY

Due to recent reorganization of the plant Training Department, an editorial change was made to Administrative Procedure 9.0 stating the Plant Training Administrator is responsible for training activities at the plant. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

This is non safety-related and an administrative only change. No safety evaluation was required.

SPHERE EXHAUST AND SUPPLY VALVES

Operating procedure (SOP-25) was revised as a result of corrective action associated with a Condition Report (Less Than Adequate Guidance - Primary System Leakrate). The guidance addresses performing/completing the daily primary system leakrate if the Sphere Ventilation Valves are closed and cannot be opened due to freezing weather or some other reason. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

A portion of the leak rate calculation is dependent on data collected from the supply/exhaust dew cells; however this information is additive and can be omitted from the leak rate calculation without mathematical consequence. Eliminating this information from the calculation in this condition is reasonable considering this ventilation path is isolated. Performing the leak rate test under these conditions is acceptable and meets the daily requirement described in the FHSR, however every effort must be made to reopen the sphere ventilation valves as soon as possible. The safety evaluation concluded that the activity did not constitute an unreviewed safety question.

EXEMPTION FROM SINGLE FAILURE CRITERION FROM 1976 MEMORANDUM AND ORDER - CLARIFICATION IN THE FHSR

A conference call was held between the NRR, Region III and Big Rock Point staff regarding the exemption from the single failure criterion from the 1976 Memorandum and Order (page 14). Information in the FHSR conflicted with the Appendix K exemption that could lead to an interpretation concluding that pump failures would have to be considered as active failures. It was agreed that a revision would be made to the FHSR. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

This change meets the criteria for an editorial change and does not delete or revise existing FHSR requirements. A safety evaluation was not required per Administrative Procedure 6.2 "FHSR Management".

FLOW LIMITATION FOR REACTOR CLEANUP SYSTEM

Information regarding the flow limitation for the reactor cleanup system was not found in the current updated FHSR. The limitation for the reactor cleanup flow was established during the installation of the pressure transmitter and pressure gage for the reactor cooling water side of the non-regenerative heat exchanger (per FC-567). The heat exchanger vendor SW Engineering Co stated the flow must be limited to the shell side of the regenerative heat exchangers to minimize the effects of tube vibration from high flow rates. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

Maintaining flow limitations, the probability of compromising the reactor coolant system heat exchangers does not exist. A failure of concern would most likely be a tube, in which the leak would be self contained. The safety evaluation concluded that the activity did not constitute an unreviewed safety question.

O-TGS-1 REQUIREMENTS FOR MANUAL SCRAMS

During a plant shutdown, a manual scram will be performed after the turbine is tripped presenting fewer challenges to plant equipment and operators and reducing the probability of a return to critical or control rod drive out-of-sequence event. (For other plant shutdowns, the shift supervisor will determine the method of control rod insertion (scram or normal notching) after the turbine is tripped.) The changes to O-TGS-1 set out steps to follow for manual scrams. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

Manual and automatic scrams have been initiated from various power levels during the plant's life. A manual scram during plant shutdown will not result in a different kind of accident previously evaluated in the FHSR. The safety evaluation concluded that the activity did not constitute an unreviewed safety question.

SPENT FUEL STORAGE DISCREPANCIES IN THE FHSR VERSUS ACTUAL PLANT OPERATION

Discrepancies between actual plant operation and the FHSR were discovered. Changes made to the updated FHSR reflect the current practices regarding spent fuel storage. The changes involve references to a spent fuel pool cooling analysis that assumed (in 1990) Big Rock Point would be shipping spent fuel off-site. The analysis remains unchanged, but clarification that spent fuel is still being stored on-site was made. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

The analysis was bounded by the Technical Specification limit of 441 assemblies stored in the spent fuel pool, therefore, the current and future heat load in the spent fuel pool is bounded by the analysis. The safety evaluation concluded that the activity did not constitute an unreviewed safety question.

PERMANENT DISCHARGE OF AUXILIARY NEUTRON SOURCES TO SPENT FUEL POOL

Change to the FHSR to reflect the analysis (EA-SC-960003-01) performed to justify permanently discharging the auxiliary neutron sources to the spent fuel pool prior to Cycle 29 reload. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

This is non safety-related and an administrative change. No safety evaluation was required.

LOW RANGE LEAKAGE - LIQUID POISON SYSTEM

Leakage to the liquid poison system is monitored by a low range pressure gauge installed in the control room. The change made was to change the range from 0-25 psig to 0-100 psig. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

This is non safety-related and an administrative change. No safety evaluation was required.

ACCESS CONTROL OF RADIATION AREAS - CLARIFICATION

This change was made to align working level procedures with the FHSR. Changed wording regarding status sheets posted from entrance to each area to frequently entered areas and clarification regarding exemption from Radiation Work Permit (RWP) usage. This change will be submitted in Revision 6 to the updated FHSR.

Safety Analysis Summary

Alignment of working level procedures and the current FHSR. The safety evaluation concluded that this change did not constitute an unreviewed safety question.