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Power Generation Department



NED-83-500

October 5, 1983

Director of Nuclear Reactor Regulation
Attention: Mr. John F. Stolz, Chief
Operating Reactors Branch No. 4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKET 50-366
OPERATING LICENSE NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
PLANS FOR REACTOR COOLANT PRESSURE BOUNDARY
PIPING REPLACEMENT IN UPCOMING OUTAGE

Gentlemen:

By confirmatory order dated July 8, 1983, the NRC required that Georgia Power Company (GPC) provide plans for additional inspections of repaired and unrepaired recirculation system stainless steel piping welds during the present fuel cycle at Plant Hatch Unit 2. In addition, that order required GPC to submit plans for corrective actions and/or modifications at least three months before the start of the next refueling outage.

Examination plans which committed to performing inspections on selected piping welds in the Recirculation System and Residual Heat Removal (RHR) System were submitted to NRC by our letter dated August 5, 1983. The examinations were to be performed during an outage scheduled to begin no later than December 31, 1983.

In lieu of performing the committed inspections, GPC has decided to replace the affected stainless steel piping and hereby requests relief from performing those inspections. GPC continues to believe that the weld repairs would be fully effective for at least five years and views the replacement of piping to be an economic decision rather than a safety concern.

Pursuant to the requirements of the confirmatory order, GPC hereby provides notification to NRC that plans are being developed for the replacement of the main recirculation stainless steel piping during an outage tentatively scheduled to begin in January 1984. Although the detailed planning is not yet complete, the following is a brief summary of the current piping replacement plans:

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(1) Work Description

The job will consist of cutting the old piping, removing it from containment, and welding the new piping in place. The work will be done with all fuel removed from the reactor vessel, the fuel pool gates in place, and the water level lowered as required inside the vessel.

Due to obstructions within the drywell, it is anticipated that a significant amount of structural steel, ventilation equipment and ducting, and electrical equipment and cable will be removed to provide access for the piping work. Job controls will assure that any structures or equipment which are removed are properly restored prior to restarting the unit after work completion.

(2) Project Organization Description:

The job will be performed under the direction and control of a dedicated project organization. The Project Manager at GPC has overall responsibility for the job.

Engineering support is being provided by Southern Company Services Incorporated (SCSI) through a dedicated engineering staff under an assigned project lead engineer. SCSI will provide engineering services from their home offices and will also provide on-site full shift engineering coverage for the job.

The removal/installation work will be performed by Newport News Industrial (NNI). NNI performed a similar task at Niagara Mohawk's Nine Mile Point Plant.

Support services groups will be assigned to the project for its duration to assure continuity of support. These support groups will include Quality Assurance, Quality Control, Health Physics, and others as needed.

(3) Design

The new piping to be utilized will be Nuclear Grade type 316 stainless steel with 0.02% maximum carbon content and nitrogen controlled between 0.06% and 0.10%. An evaluation of the existing safe-end materials has revealed that they are constructed of a low carbon stainless steel and do not require replacement.

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The new Recirculation System piping configuration will be slightly different from the existing system in that the existing 22-inch header end caps will be eliminated. This is accomplished by using a 22 x 12 inch reducer and a long tangent elbow to replace the old header, outboard risers, and end cap assembly. In addition, the new riser piping will be of a one-piece design to reduce the number of welds employed in the system.

The stainless steel portions of the Class 1 RHR System piping and the nonisolable portion of the Class 1 Reactor Water Cleanup System piping are also scheduled to be replaced during the Recirculation System piping replacement.

The piping material and the new design are being supplied by General Electric Company.

(4) Analyses:

Stress analysis will be performed after the design is finalized and will be fully documented at that time. It is expected that the new piping design will reduce the stresses on the piping. Other analyses such as system hydraulic characteristics, seismic effects, etc. that may be affected by the new piping geometry will also be evaluated.

(5) Health Physics:

A full ALARA evaluation will be performed and reasonable steps will be taken to reduce radiation exposures and contamination.

(6) Mockups:

Full-scale mockups will be utilized as training aids as deemed appropriate. This is expected to reduce radiation exposure and reduce outage time by promoting improved efficiency.

These piping replacement plans will be described in greater detail in a report scheduled to be provided to the NRC by mid-November. A draft outline of that report is attached.

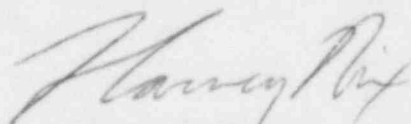
The outage schedule and piping replacement plans were discussed with NRC Region II and NRR management personnel in a meeting at GPC's offices on September 28, 1983.

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Please be advised that proposed Technical Specification changes to accommodate piping replacement are forthcoming. Your cooperation is requested to review and approve the proposed changes in a timely manner to avoid the schedular impact on this voluntary major piping replacement.

GPC is willing to meet with the NRC staff to discuss our planning/replacement status and to answer any questions the staff may have. Should you desire such a meeting, please contact this office.

Sincerely yours,



H. C. Nix, Jr.
General Manager

JAE/JNM/mb

Attachment

xc: L. T. Gucwa
Senior Resident Inspector
J. P. O'Reilly (NRC-Region II)

ATTACHMENT
PROPOSED OUTLINE
REPORT ON RECIRCULATION PIPING REPLACEMENT AT HATCH UNIT 2

1.0 INTRODUCTION

- 1.1 Purpose
- 1.2 Scope
- 1.3 Future Reports

2.0 DESCRIPTION OF WORK

- 2.1 Work Sequence
- 2.2 Advance Preparations and Job Preplanning
- 2.3 Interference Removal
- 2.4 Defueling/Fueling
- 2.5 Drywell Restoration
- 2.6 System Testing for Startup

3.0 PROJECT DESCRIPTION

- 3.1 Overall Organization
- 3.2 Project Management
- 3.3 Engineering
- 3.4 Contractor
- 3.5 Support Services
 - 3.5.1 Quality Control
 - 3.5.2 Health Physics
 - 3.5.3 Consultants
 - 3.5.4 Licensing
 - 3.5.5 Authorized Nuclear Inspector

4.0 DESIGN DESCRIPTION

(To address methods, physical geometry, supports, etc.)

5.0 ANALYSES

(To address hydraulic, stress, seismic effects, etc.)

6.0 HEALTH PHYSICS CONTROLS

- 6.1 ALARA Evaluation
- 6.2 Airborne Contamination Controls
- 6.3 Contaminated Material Controls Outside Containment

7.0 WASTE DISPOSAL

- 7.1 Waste Minimization
- 7.2 Piping Disposal

PROPOSED OUTLINE
REPORT ON RECIRCULATION PIPING REPLACEMENT AT HATCH UNIT 2

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8.0 PIPING INSULATION

9.0 CODES AND STANDARDS

10.0 INSPECTIONS

11.0 TRAINING

- 11.1 Mockup Training
- 11.2 Welder Qualification
- 11.3 Health Physics

12.0 TEMPORARY FACILITIES

- 12.1 Drywell Ventillation
- 12.2 Training
- 12.3 Health Physics

13.0 TECHNICAL SPECIFICATIONS

- 13.1 Temporary
- 13.2 Permanent

14.0 SAFETY ANALYSIS