#### September 19, 1996

Virginia Electric and Power Company ATTN: Mr. J. P. O'Hanlon Senior Vice President - Nuclear Innsbrook Technical Center 5000 Dominion Boulevard Glen Allen, VA 23060

SUBJECT: MEETING SUMMARY - VIRGINIA ELECTRIC AND POWER COMPANY UPDATED

FINAL SAFETY ANALYSIS REPORT (UFSAR) REVIEW FOR SURRY AND NORTH ANNA

DOCKET NOS. 50-280, 50-281, 50-338, AND 50-339

Dear Mr. O'Hanlon:

This refers to the meeting conducted at your request at the NRC Region II Office in Atlanta, Georgia on September 16, 1996. The meeting's purpose was to discuss Virginia Electric and Power Company's proposal for reviewing and revising the UFSAR.

It is our opinion that this meeting was beneficial in that it provided us with a better understanding of your UFSAR review. Specific topics discussed included management's expectations, background and current initiative.

A list of attendees and a copy of your handout is enclosed.

In accordance with Section 2.790 of the NRC's "Rules of Practice." Part 2. Title 10 Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

Original signed by George A. Belisle

George A. Belisle, Chief Reactor Projects Branch 5 Division of Reactor Projects

Docket Nos. 50-280, 50-281, 50-338, and 50-339 License Nos. DPR-32, DPR-37, NPF-4, and NPF-7

Enclosures: 1. List of Attendees

 The Updated Final Safety Analysis Report (UFSAR) September 16, 1996

cc w/encls: See page 2

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#### LIST OF ATTENDEES

#### NRC Attendees:

S. D. Ebneter, Regional Administrator, Region II (RII) J. R. Johnson, Acting Director, Division of Reactor Projects (DRP), RII

A. F. Gibson, Director, Division of Reactor Safety (DRS), RII G. A. Belisle, Chief, Reactor Projects Branch 5, DRP, RII C. A. Casto, Chief, Engineering Branch, DRS D. C. Payne, Senior Licensing Examiner, DRS P. C. Hopkins, Project Engineer, DRP, RII

#### Licensee Attendees:

M. L. Bowling, Manager, Nuclear Licensing and Operations Support J. D. Hegner, Project Manager M. W. Henig, Senior Staff Engineer

# The Updated Final Safety Analysis Report (UFSAR)

NRC Region II September 16, 1996



### Agenda

- Management's Expectations
- Background
- Current Initiative



# Virginia Power Management Expectations

- Surry and North Anna are to be designed and operated consistent with the information contained in their UFSARs
- The UFSARs are to be *consulted* in day-to-day activities affecting the nuclear stations
- Changes to the UFSARs are to be *accurate*, *timely*, and made in accordance with approved administrative controls to ensure that regulatory *requirements* are met



# Background

#### **■** Surry Power Station

- Operating licenses issued in 1972 and 1973
- FSAR initially updated in 1982
- Original updated FSAR was/is eight volumes

#### ■ North Anna Power Station

- Operating licenses issued in 1978 and 1980
- FSAR initially updated in 1982
- Original updated FSAR was/is sixteen volumes



#### UFSAR Maintenance

- Changes to the UFSARs occur as a result of individual change drivers and various programmatic initiatives
- Individual change drivers include:
  - Design changes
  - Procedure changes
  - Engineering analyses
  - Licensing bases changes
  - Discovery of errors



### Programmatic Initiatives

- Several programmatic initiatives have already been undertaken by Virginia Power to examine UFSAR content from various perspectives:
  - Engineering Validation (1989-90)
  - Electrical Chapters Review (1991-NAPS)
  - Operations Review (1992)

VIRGINIA POWER

- Environmental & Stagnant Chapters Review (1994)
- Periodic Reviews (1995-Present)
- Those initiatives were considered cost-effective methods for achieving UFSAR improvements
- Over 400 UFSAR change packages were processed

#### Recent Events

- Events at Millstone reemphasized the importance of the document
- Similarly, information made known to Virginia Power management reemphasized the need for continued concern with UFSAR quality:
  - NRC reviews and inspections
  - Corporate Nuclear Safety Change Assessment
  - Nuclear Oversight Audit Findings
  - Station Deviation Reports
  - Integrated Trend Reports



# UFSAR Project Task Team

- A Virginia Power project team was established in May 1996 in response to growing concerns regarding UFSAR quality
- The project team was composed of individuals with operations, engineering, and licensing expertise...and who were familiar with the UFSARs



# UFSAR Team Findings

- Based on extensive programmatic reviews and audits by various internal groups, no immediate safety concerns exist
- However, problems continue to exist with process, usage, and content



## Project Team Recommendations

- Focus on process improvements to achieve a *durable* increase in UFSAR quality
- The UFSAR Improvement Action Plan consists of two basic components:
  - 1. Improving processes and usage
  - 2. Assessing operations and content
- Once the action plan is implemented, the project team will validate process and usage improvements, and make appropriate recommendations for further action

# Process and Usage Improvements

- Achieve a higher level of accountability
- Simplify administrative controls
- Develop an UFSAR Writers Guide
- Improve integration with other programs
- Implement electronic versions of UFSARs
- Conduct UFSAR awareness training



# Operations & Content Assessments

- Industry initiative to conduct UFSAR assessments approved by licensee executives on July 23, 1996
- Presented to NRC August 2, 1996
- NRC feedback on August 14, 1996:
  - » Resolution of three pre-conditions not required
  - » More SSFI-like review appears appropriate
- Industry executives to discuss Sept. 24, 1996



# Implementing the Assessments

- Utilize assessment teams with operations, design engineering, system engineering, and licensing expertise
- Employ NEI methodology
- Be sensitive to NRC SSFI methodology
- Conduct assessments over three week period
- Evaluate results and make recommendations to management to address remaining UFSAR sections
- Summarize and forward results to NEI



# NEI Methodology

- UFSAR accuracy (Four system sample)
  - » Plant design and operation v. UFSAR content
- Programmatic change sampling
  - » e.g. DCPs, TS Changes, Bulletins
- Non-programmatic change sampling
  - » e.g., Standing Orders, Abandoned equipment
- Evaluation
  - » Appropriately disposition all findings



## SSFI Methodology

- Risk- and safety-based method for selecting systems for review
- Ensure that problem identification and corrective action is representative and consistent
- In-depth review:
  - » Engineering design and configuration control
  - » Verification of as-built and as-modified conditions
  - » Translation of design bases requirements into operating procedures, maintenance and testing
  - » Verification of system performance
  - » Corrective actions for design deficiencies
  - » Modifications made since original system



### Systems Assessed

#### ■ Surry

- Safety Injection
- Auxiliary Feedwater
- Circulating Water
- Component Cooling

#### ■ North Anna

- Safety Injection
- Auxiliary Feedwater
- Instrument Air
- Component Cooling

Systems assessed include safety-related and nonsafety-related. The four listed above are risk significant. A fifth system will be included. The basis for its selection will be to assess UFSAR adequacy for a low risk/low priority system



#### Assessment Teams

- Separate assessment teams have been assembled at each station with operations, system engineering, design engineering, and licensing expertise
- Surry assessment: Sept. 23-Oct. 11, 1996
- North Anna assessment: Oct. 7-25, 1996



## Follow-up Actions

- Based on initial assessment efforts, establish the scope, schedule, priority, resource requirements, and methodology for conducting reviews of the remaining portions of the Surry and North Anna UFSARs
- Make recommendations to management



#### Overall Schedule

■ Sept. 30, 1996 Complete Process Enhancements

Oct. 11, 1996 Complete Surry Assessment

Oct. 23, 1996 Complete North Anna Assessment

Nov. 30, 1996 Load UFSARs on MIND System

Nov. 30, 1996 Validate Process Enhancements

■ Dec. 15, 1996 Follow-up Action Recommendations

■ ~ June 1997 Industry Initiative Target Completion

