

April 1, 1998

Mr. Harry P. Salmon, Jr.  
Vice President of Engineering  
New York Power Authority  
James A. FitzPatrick Nuclear Power Plant  
123 Main Street  
White Plains, NY 10601

Subject: NYPA DROP-IN MEETING ON ENGINEERING PROJECTS CONCERNING THE  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT

Dear Mr. Salmon, Jr.:

This letter documents your drop-in meeting with NRC Region I management on March 30, 1998. The purpose of the meeting was to provide regional management with information and status on several significant NYPA projects concerning the James A. FitzPatrick nuclear power plant. The topics discussed were the emergency core cooling strainer project, the independent spent fuel storage installation project and the year 2000 project.

The attendees for this drop-in meeting are listed in Enclosure 1. Handouts which you provided during the meeting are in Enclosure 2. During this meeting, no regulatory decisions were requested by you nor made by the NRC staff.

We thank you for your initiative to keep us abreast of these current engineering activities.

Sincerely,

Original Signed by:

David C. Lew, Chief  
Projects Branch 2A  
Division of Reactor Projects

Docket No. 50-333

Enclosures:

1. Meeting Attendees
2. NYPA Slides

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C. D. Rappleyea, Chairman and Chief Executive Officer  
E. Zeltmann, President and Chief Operating Officer  
R. Hiney, Executive Vice President for Project Operations  
J. Knubel, Chief Nuclear Officer and Senior Vice President  
W. Josiger, Vice President - Engineering and Project Management  
J. Kelly, Director - Regulatory Affairs and Special Projects  
T. Dougherty, Vice President - Nuclear Engineering  
R. Deasy, Vice President - Appraisal and Compliance Services  
R. Patch, Director - Quality Assurance  
G. C. Goldstein, Assistant General Counsel  
C. D. Faison, Director, Nuclear Licensing, NYPA  
K. Peters, Licensing Manager  
T. Morra, Executive Chair, Four County Nuclear Safety Committee  
Supervisor, Town of Scriba  
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law  
P. Eddy, Electric Division, Department of Public Service, State of New York  
G. T. Goering, Consultant, New York Power Authority  
J. E. Gagliardo, Consultant, New York Power Authority  
E. S. Beckjord, Consultant, New York Power Authority  
F. William Valentino, President, New York State Energy Research  
and Development Authority  
J. Spath, Program Director, New York State Energy Research  
and Development Authority

Harry P. Salmon, Jr.

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*4/1/98*

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**ENCLOSURE 1**

**MEETING ATTENDEES**

**NYPA**

Harry Salmon, Vice President - Engineering  
Kenneth Phy, Project Engineering Supervisor  
Nick Avrakotos, Emergency Planning Manager  
Norman Hoy, Project Engineer

**NRC**

Jim Wiggins, Director, Division of Reactor Safety (DRS)  
David Lew, Chief, Projects Branch 2A, Division of Reactor Projects (DRP)  
Glenn Meyer, Chief, Civil, Mechanical, Materials Engineering Branch, DRS  
John White, Chief, Radiation Safety Branch, DRS  
Harold Gray, Senior Reactor Engineer, Civil, Mechanical, Materials Engineering Branch, DRS  
Richard Barkley, Project Engineer, Projects Branch 2, DRP

**Presentation to**

**NRC Region I**

**JAF ISFSI Project**

**Kenneth A. Phy**

**New York Power Authority**

**James A. FitzPatrick Nuclear Power Plant**

# Agenda

- **Project Goals**
- **Project Description**
- **Spent Fuel Storage Capacity**
- **Full Core Offload Capability**
- **Technology and Licensing**
- **Project Schedule**
- **Open Discussion**

## Project Goals

- **Provide Long Term Storage of Spent Nuclear Fuel at JAF**
- **Maintain Full Core Offload Capability**
- **Upgrade Reactor Building Crane**
- **ISFSI Operational Spring 2001**

# Description

- **Independent Spent Fuel Storage Installation**
  - Initial Storage - 200 Spent Fuel Assemblies (SFA)
  - Phased Expansion - 4300 SFA
  - Dry Cask Storage System
  - Storage Pad, Facility, & Equipment
  - Site Road and Railway Upgrades
  - Plant Access Modifications
- **Reactor Building Crane Upgrade**

## Spent Fuel Storage Capacity

- **Current License - Capacity of 2797 Cells**
- **Technical Specification Amendment Submitted for Increase to 3247 Cells**
- **Current Storage - 2080 SFA**

## Maintain Full Core Offload

- Add 1 New Rack Prior to RO13 (Oct 1998)
- Add 2 New Racks Prior to RO14 (Oct 2000)
- Transfer 200 SFA to ISFSI Prior to RO15 (Oct 2002)
- Transfer 200 SFA each Cycle Thereafter

**Note: Without ISFSI Plant Shutdown 2008**

# Technology and Licensing

- **MPC Licensed for Storage 10CFR72 and Transportation 10CFR71**
- **General License - 10 CFR 72 Subpart K**
- **Upgrade RB Crane to Single Failure Criteria (NUREG 0554) 125 Ton Rating**
- **Project Plan Based on NEI 97-01**

# Project Schedule

- **Award Major Contracts - May 1998**
  - Cask Vendor (two)
  - Engineering Services
  - RB Crane Vendor
- **ISFSI Design - May 1999**
- **Receive Cask Certificate of Compliance  
10CFR72 Subpart L - Dec 1999**
  - Risk of Licensing Delays

## **Project Schedule - (cont.)**

- **ISFSI Complete - Sep 2000**
- **Dry Run & Training - May 2000**
- **Casks Received - Sep 2000**
- **Notify NRC Ready to Load - Dec 2000**
- **Casks Loaded - Aug 2001**
- **Refueling Outage - Oct 2002**

## Discussion

- **General License Approach**
- **NRC Experience to Date**
- **Cask Vendors**
- **Industry Experience**
- **Other**

**Presentation to**

**NRC Region I**

**JAF ECCCS Strainer Project**

**Norman A. Hoy**

**New York Power Authority**

**James A. FitzPatrick Nuclear Power Plant**

# Agenda

- **Project Overview**
- **Strainer Design and Physical Layout**
- **Schedule**
- **Implementation Issues**
- **Licensing Issues**

# Project Overview

- **Basis**

- USNRCB 96-03
- USNRC R.G. 1.82 Rev 2
- NUREG CR/6224
- BWROG URG

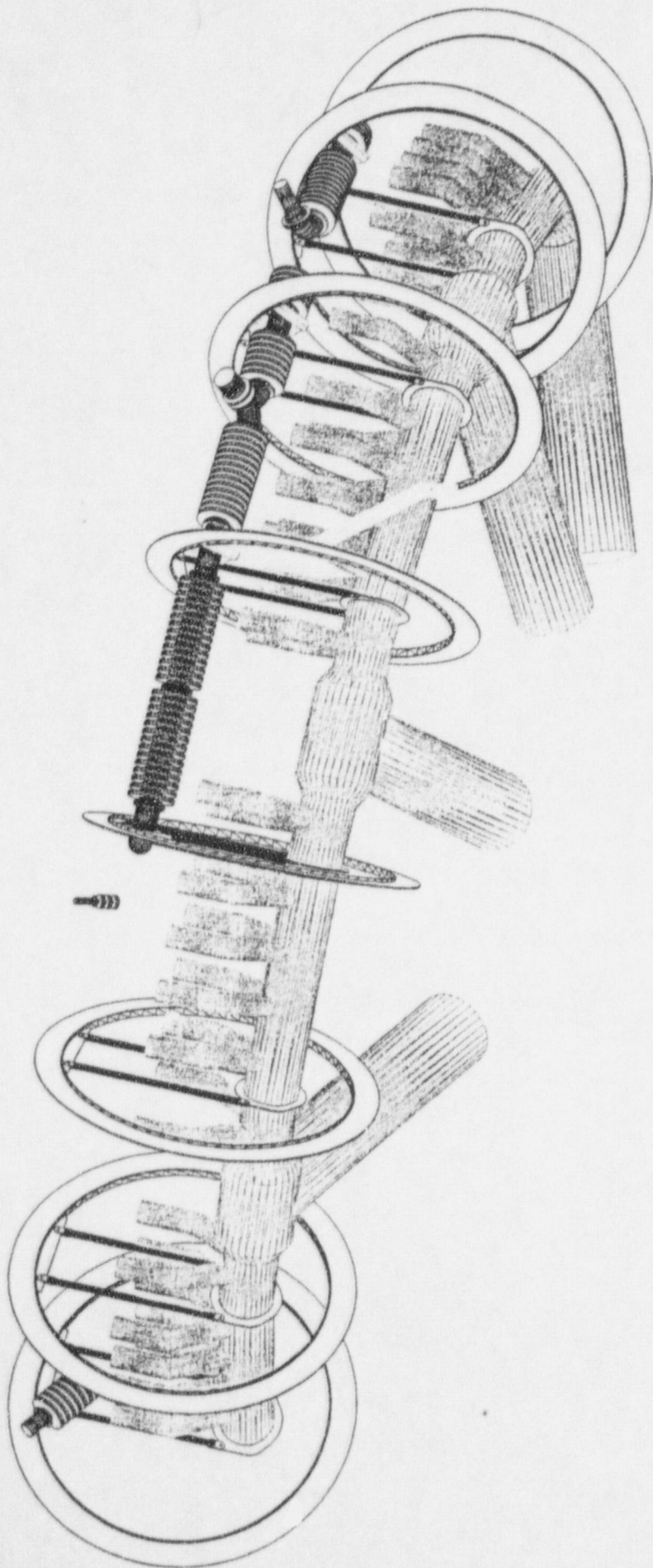
- **Dedicated Project Team**

- **Install 6 Passive Strainers**
  - RHR, CS, HPIS, RCIC

# Design and Physical Layout

## ● Design Basis Results - Final Design

|     | Allowable Head Loss (ft.-water) | Clean Head Loss (ft.-water) | Debris Head Loss (ft.-water) | Total Head Loss (ft.-water) | Head Loss Margin (ft.-water) |
|-----|---------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|
| RHR | 1.92                            | 0.71                        | 0.48                         | 1.19                        | 0.72                         |
| CS  | 4.33                            | 0.56                        | 2.04                         | 2.60                        | 1.73                         |



# JAF Specific Design Parameters

## ● Debris Source Terms - RHR/CS

- total quantities in suppression pool, time dependent analysis determines amount on strainer.

| Debris Constituent           | Value Used                        |
|------------------------------|-----------------------------------|
| NUCON                        | 397 cu-ft (953 lbm)               |
| Temp-Mat                     | 43.9 cu-ft (496 lbm)              |
| Sludge                       | 1000 lbm                          |
| Dust/Dirt                    | 150 lbm                           |
| Rust                         | 50 lbm                            |
| Paint - LOCA Jet             | 85 lbm                            |
| Paint - Potentially Degraded | 170 lbm (arbitrary margin factor) |
| Miscellaneous                | 15 sq-ft                          |

# Project Schedule

- Preliminary Engineering - 25Mar98
- Modification Package - 18May98
- Insulation Mod Package - 15Jul98
- Strainer Fabrication - 12Aug98
- RO13 Outage Start - 16Oct98
- Torus Installation Work - 18 days

# Implementation Issues

- **Torus Access Hole Cut**
  - Full penetration weld
  - Post work testing
    - volumetric inspection
    - local leak test
- **Mineral Wool Insulation**
- **De-water Torus**
- **Containment Coating Evaluations**
- **HPCI and RCIC Strainer Designs**

## Licensing Issues

- **Proceeding with Strainer Design and Procurement**
- **SER for BWROG Response to USNR CB 96-03**
- **NPSH Generic Letter 97-04**
- **Containment Coatings Generic Letter**
- **Plant Specific SER**

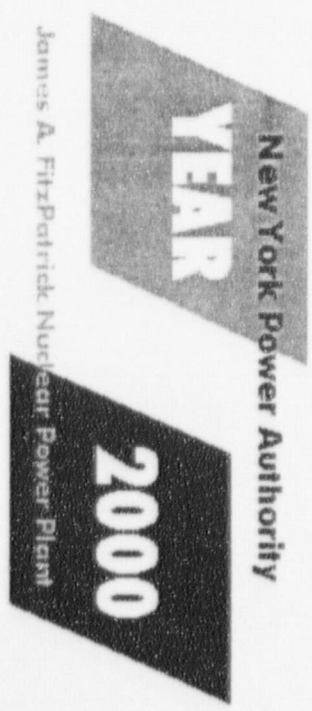


# JAFNPP YEAR 2000

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## Updated Information

3/29/98



# Progress

- **Completed Initial Departmental & System Review**
  - Approximately 1200 potential items identified
- **IAFNPP Task list & Plan Draft**
- **Data Form & Temp Database Established**
- **GE Authorized via BWR0G**
- **NEI Y2K Methodology Adopted**
- **Agreed to use PID work tracking system**

# Data Form



Y2K Number  
**Y2K**

Description

Y2K Compliant  Area   
 Y2K Compliant  Functional Area   
 Number of Devices  Software   
 Number of Devices  Embedded System Post   
 Embedded System Post

Manufacturer  Component   
 Manufacturer  Sub System  Component Type   
 System  Sub System  Component Type   
 Version Model Number  Embedded Firmware Ver   
 Version Model Number  Embedded Firmware Version

Notes   
 Notes   
 Notes

Owner  Maintained   
 Owner  Maintained By  Resolution Response   
 Nuclear Safety  Regulatory Commitment  Business Criticality   
 Nuclear Safety  Regulatory Commitment  Business Criticality

Vendor Contact  Vendor has Certified Y2K   
 Vendor Contacted  Vendor has Certified Y2K

Scheduled for Replacement  Anticipated Compliance  Warrantly Maint Cont   
 Scheduled for Replacement  Anticipated Compliance ID  Warrantly Maint Contract   
 Hardware Platform  Languages   
 Approximate lines of code  Level of effort   
 Approximate lines of code  Communicates with another device   
 External Interface  Communicates with another device   
 Testing By  Testing in Place Post   
 Testing By  Testing in Place Possible

Date Entered  Data Process  Initial Data By   
 Date Entered  Data Process  Initial Data By   
 Second Check By  Second Check Embedd   
 Second Check By  Second Check Embedd   
 Responsible Phone Num  Responsible EMail   
 Responsible Phone Num  Responsible EMail

3/29/98



# JAF Y2K Plan

- **Administrative Tasks**

- **Initial Actions**

- Initial Inventory
- Prioritization & Constrains
- Conversion to work Packages
- Contingency

- **Comprehensive Inventory**

- **Testing and Resolution**

# Attention Areas

Year 2k

Year 2000

- **Program Data Required**
  - Vendor letters/ program documentation methodology
  - Third Party acceptance criteria
  - NYPA Embedded search criteria
- **Impact to the Outage**
  - Additional Mods or Walkdowns required
  - Contingency Plans need to be developed

