

JUL 10 1992

Docket No. 50-333

Mr. Harry F. Salmon, Jr.
Resident Manager
New York Power Authority
James A. FitzPatrick Nuclear Power Plant
Post Office Box 41
Lycoming, New York 13093

Dear Mr. Salmon:

SUBJECT: ENFORCEMENT CONFERENCE ON JUNE 24, 1992, TO DISCUSS
APPARENT VIOLATIONS DOCUMENTED IN INSPECTION REPORTS
NO. 50-333/92-80 AND 50-333/92-81

On June 24, 1992, an enforcement conference was held between the NRC and New York Power Authority (NYPA) staffs in the NRC Region I office. The purpose of the enforcement conference was to discuss the apparent violations documented in inspection reports 50-333/92-80 and 50-333/92-81. After introductions and a brief statement of purpose by the NRC, the meeting was turned over to NYPA for its response to the apparent violations.

Discussions during the conference focused on the circumstances and significance of the apparent violations involving the fire protection program and 10 CFR 50.9 concerns involving Emergency Service Water. A list of enforcement conference attendees is attached as Enclosure 1. To address these apparent violations, a summary document was provided to the NRC staff and is attached as Enclosure 2.

In addition to the corrective actions outlined in its summary, NYPA committed to three items in response to concerns raised by the NRC staff during the conference. These commitments were:

1. Issue a supplement to Licensee Event Report 92-15 to provide a detailed technical evaluation and analysis of the safety significance for each of the deficiencies identified;
2. Provide assessment of the failure to respond to the recommendations in Generic Letter 86-10;
3. Evaluate the Quality Assurance Program to determine if all of the technical specification requirements are periodically reviewed in accordance with the program requirements.

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Mr. Harry P. Salmon, Jr.

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This letter documents the highlights of the June 24, 1992, enforcement conference and the NYPA commitments stated above. If we have mischaracterized any of these commitments, please notify us, in writing, as soon as possible. Specific enforcement action taken by the NRC staff will be communicated to NYPA via separate correspondence.

Your cooperation is appreciated.

Sincerely,

Marvin W. Hodges
Marvin W. Hodges

Marvin W. Hodges, Director
Division of Reactor Safety

Enclosures:

1. Enforcement Conference Attendees
2. NYPA Enforcement Conference Summary Document

cc w/encls:

J. Brons, President
R. Beedle, Executive Vice President - Nuclear
G. Goldstein, Assistant General Counsel
J. Gray, Jr., Director, Nuclear Licensing - BWR
Supervisor, Town of Scriba
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
Director, Power Division, Department of Public Service, State of New York
K. Abraham, PAO (2)
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of New York, SLO Designee

bcc w/encs:

Region 1 Docket Room (with concurrences)

R. Lobel, OEDO

J. Lieberman, OE

R. Capra, NRR

B. McCabe, NRR

C. Hehl, DRP

M. Hodges, DRS

W. Lanning, DRS

L. Bettenhausen, DRS

C. Cowgill, DRP

P. Eselgroth, DRP

N. Blumberg, DRS

R. Urban, DRP

W. Cook, SRI - FitzPatrick

G. Tracy, SRI - IP-3

DRS/EB SALP Coordinator

DRSS SALP Coordinator

D. Holody, EO

F. Bower, DRS

J. Caruso, DRS

S. Hansell, DRS

J. Trapp, DRS

DRS Files (1)

RI:DRS

Caruso/dmg

06/29/92

RI:DRS

Blumberg

07/2/92

RI:DRP

Cowgill

07/2/92

RI:DRS

Bettenhausen

07/9/92

RI:DRS

Lanning

07/9/92

RI:DRS

Hodges

07/10/92

ENCLOSURE 1

JUNE 26, 1992

List of Enforcement Conference Attendees

NRC

C. Anderson, Acting Chief, Engineering Branch, Division of Reactor Safety (DRS)
L. Bettenhausen, Chief, Operations Branch, DRS
N. Blumberg, Chief, Performance Programs Section, Operations Branch, DRS
R. Capra, Director, Project Directorate I-1, Office of Nuclear Reactor Regulation (NRR)
J. Caruso, Operations Engineer, Performance Programs Section, Operations Branch (DRS)
W. Cook, SRI, James A. FitzPatrick Nuclear Power Plant
C. Cowgill, Chief, Projects Branch No. 1, Division of Reactor Projects (DRP)
A. Della Grecca, Engineering Branch, DRS
P. Drysdale, Senior Reactor Engineer, Operations Branch, DRS
T. Eashck, Enforcement Specialist, ORA
P. Eselgroth, Chief, Reactor Projects Section No. 1B, DRP
S. Hansell, Operations Engineer, BWR Section, Operations Branch, DRS
A. Heggie, Performance Programs Section, Operations Branch, DRS
C. Hehl, Director, DRP
W. Lanning, Deputy Director, DRS
J. Lieberman, Office of Enforcement
R. Lobel, Office of Executive Director of Operations
T. Martin, Regional Administrator, Region 1
B. McCabe, Acting Resident Inspector, James A. FitzPatrick Nuclear Power Plant
R. Paroby, Co-op, Engineering Branch, DRS
R. Plasse, Acting Project Manager, NRR
M. Sjoberg, SKI Inspector, BWR Section, Operations Branch, DRS
K. Smith, Regional Counsel, ORA
J. Tappert, Reactor Engineer, DRP
W. Troskoski, Office of Enforcement
R. Urban, Project Engineer, DRP

NYPA

R. Beedle, Executive Vice President, Nuclear Generation
M. Colomb, General Manager, Support Services
J. Ellmers, Supervisor, Nuclear Licensing Engineering
J. Gray, Jr., Director, Nuclear Licensing, BWR
R. Heath, Fire Protection Supervisor
K. Gus Mavrikis, NYPH, Director, Nuclear Engineering and Design
C. Ponzi, System Engineer
H. Salmon, Resident Manager

NYPA (Cont'd.)

- B. Schimpf, Fire and I&C Engineering Manager
- D. Simpson, Training Manager
- G. Tasick, Quality Assurance *Manager
- S. Zulla, Vice President, Nuclear Engineering

ENCLOSURE 2

**NYPA
RESPONSE TO
INSPECTION
92-80
APPARENT VIOLATIONS**



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I.	INTRODUCTION	M. Colomb
II.	FIVE APPARENT VIOLATIONS	
1.	Safe Shutdown Equipment (III.G)	R. Schimpf
2.	Installed Emergency Lighting	R. Schimpf
3.	Emergency Lighting Surveillance Testing	R. Schimpf
4.	Fire Protection and Prevention Program	
	• Combustibles, Inspections, Ignition Sources, Preplans	A. Heath
	• Fire Watch and Fire Brigade Training, Drills and Equipment	D. Simpson
5.	Prompt and Effective Corrective Actions	G. Tasick
III.	Root Causes/Summary of Corrective Actions	M. Colomb
IV.	Conclusion	H. Salmon



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Root Causes

- Lack of Commitment to Fire Protection Program
- Inadequate Interface Between WPO and JAF
- Inadequate Staff Qualifications



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SAFE SHUTDOWN EQUIPMENT

BACKGROUND

- Reassessment of Fire Protection Features for Conformance to Appendix R to 10CFR 50 was Submitted in July 1982.
- NRC Inspection of FitzPatrick Plant Ability to Provide Safe Shutdown in the Event of a Fire Occurred in June 1985.
- October 1985 Update Report on JAFNPP Compliance to 10CFR50, Appendix R Was Issued.
- Fire Protection Reference Manual was Prepared and Issued December 1991.
- Triennial Fire Protection Audit 91-07 Performed in 1991 Identified Concerns Associated with 10CFR50, Appendix R.

SAFE SHUTDOWN EQUIPMENT

APPARENT VIOLATION

- Draft Reanalysis Identified Areas of Non-Compliance, Specifically Fire Areas:
 - ID (North Cable Tunnel and Switch Gear Room)
 - IA (Administration Buildings)
 - IE (Turbine Building)
 - II (East Cable Tunnel and Switch Gear Room)
 - IX (Crescent Area and Portions of Reactor Building)
 - VII (Control, Relay, and Cable Spreading Room)
- LER # 92-015-00 Was Issued Identifying These Non Compliances.



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SAFE SHUTDOWN EQUIPMENT

BACKGROUND(cont'd)

- Concerns Identified by NYPA in July 1991 Associated with Fire Protection 10CFR50, Appendix R Resulted in a Review of Major Items Associated With These Items.
- Reanalysis of JAFNPP's Compliance With 10CFR50 Appendix R Was Initiated Using Techniques That Would Minimize Safe Shutdown Equipment List and Ensure Continued Compliance.

SAFE SHUTDOWN EQUIPMENT

SIGNIFICANCE

- Deficiencies Identified by 1992 Reassessment Demonstrated That Strict Compliance With 10CFR50 Appendix R Was Not Provided.
- Safe Shutdown Deficiency Evaluations Were Performed for Fire Areas IA, ID, IE, II, VII, and IX.
- Based on Evaluations, NYPA Believes That Operators Could Have Safely Shutdown The Plant. Credit taken for:
 - Operator Knowledge
 - Training on Plant Systems and Equipment
- There were not procedures established for actions.



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SAFE SHUTDOWN EQUIPMENT

CORRECTIVE ACTION

- NYPA Has Established a Fire Protection Organization Within Nuclear Generation That Is Responsible for the Resolution of all Concerns and the Development of a Fire Protection Program to Address the Programmatic Issues.
- NYPA has Designated the Fire and Instrument & Control Manager Responsible for the Fire Protection Program.
- NYPA Initiated and Completed JAFNPP's Safe Shutdown Capability Reassessment, of 10CFR50, Appendix R.
- NYPA is Completing Corrective Actions to Resolve Reassessment Deficiencies Identified in Our Letter.

EMERGENCY LIGHTING

BACKGROUND

- NYPA's Original Commitments for Emergency Lighting Associated with Branch Technical Position BTP-9.5.1.
- Study of Emergency Lighting Associated with 10CFR50, Appendix R Recommended Installation of New Units for Both Local Equipment Operation and Operator Access/Egress Routes.
- Study Recommended Installation of Approximately 115 New Eight Hour Battery Packs.
- Modification F1-81-116 Installed the New Units Identified in Study and was Completed in October 1982.
- Triennial Audit 91-07 Identified Concerns Associated with Emergency Lights.
- DET Identified Concerns with Verification of Illumination Levels of the Emergency Lighting Units and Questioned Maintenance/Testing of Units.



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EMERGENCY LIGHTING

SIGNIFICANCE

- The Lack of Adequate Emergency Lighting Could Have Hindered the Operator from Accomplishing Required Equipment Operations.
- Areas Blacked-out During the Inspection did not Provide Adequate Lighting per Stated Acceptance Criteria.
- Operators Stated that Actions Could Have Been Performed.



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EMERGENCY LIGHTING

CORRECTIVE ACTIONS

- Operator Access/Egress Routes and Equipment Locations Requiring Additional Emergency Lighting Units were Identified.
- Modification No. F1-82-178 was Initiated to Install the New Units Identified.
- Work Request was Prepared to Repair Any Lighting Unit That Required Repair.
- A walkdown of Access/Egress Routes and Equipment Locations will be done to Verify Adequacy Using Established Acceptance Criteria.
- NYPA has Established a Fire Protection Organization Within Nuclear Generation That is Responsible for the Resolution of all Concerns and the Development of a Fire Protection Program to Address the Programmatic Issues.

EMERGENCY LIGHTING SURVEILLANCE TESTING

BACKGROUND

- Commitment to Maintain Battery Packs in Accordance with Manufacturer's Recommendations
- Authority's Review (October 1991) of NRC Information Notice 90-69 (October 1991) Identified Corrective Actions that Included a Recommendation to Revise Existing Procedures to Include Quarterly and Annual Surveillance Items.
- DET Also Identified concerns with Verification of Illumination Levels of Emergency Lighting and Questioned the Maintenance/Testing of the Units.



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EMERGENCY LIGHTING SURVEILLANCE TESTING

BACKGROUND(cont'd)

- Manufacturer's Recommendations Include:
 - Monthly Verification of Lighting of Lamps for One Minute
 - Quarterly 30 Minute Verification of Lamps Lighting by Removing AC Input Power
 - Annual 90 Minute Verification of Lamps Lighting by Removing AC Input Power

- In the past, Periodic Maintenance/Surveillance has been Performed on a Semi-Annual and Annual Basis.
 - Semi-Annual Surveillance Verified the Lamps Illuminate by Depress Test Switch and the Electronics Function.

 - Annual Surveillance verified the Lamps Illuminate Upon a Loss of AC Input Power and Perform a Visual Inspection , Float Voltage Check, and Checks Lamp Orientation



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EMERGENCY LIGHTING SURVEILLANCE TESTING

SIGNIFICANCE

- The lack of Adequate Emergency Lighting on Could Have Hindered Operator from Accomplishing Activities Required to Achieve Shutdown
- Based on Testing Performed to Date, the Lights in Place Were Functional (Except Finite Maintenance Items)



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EMERGENCY LIGHTING SURVEILLANCE TESTING

CORRECTIVE ACTIONS

- Review the Maintenance/Surveillance Requirements for Emergency Lighting Units as Specified in the Manufacturers' Technical Bulletin, EPRI's Report and Consultants Report.
- Revise Maintenance/Surveillance Procedures to Implement Results of Above Review and Document Specific Elements Associated with Maintenance/Surveillance, Testing, Lamp Orientation, and Illumination Levels.

COMBUSTIBLES & INSPECTIONS

Background

- An accumulation of combustibles was allowed in the plant
- Some flammables in small unapproved containers were in safety-related areas
- Only one person designated to perform plant inspections.

COMBUSTIBLES & INSPECTIONS

Weaknesses:

- Lack of understanding and definition of combustible load (wood, oil)
- Standards not established

COMBUSTIBLES & INSPECTIONS

SAFETY SIGNIFICANCE

- Worst Case Additional fire load correlated to a fire duration extension of one (1) hour
- Suppression/detection equipment was available

COMBUSTIBLES & INSPECTIONS

Corrective Actions:

- All plant work was stopped for a clean-up of excess combustibles
- Higher formal standards were introduced through plant directives and the commencement of procedure improvements.
- Additional trained inspectors are on site at a level commensurate with plant work
- Heightened management awareness and sensitivity to the issue of combustible loading.
- Permit system/procedure being developed.

IGNITION SOURCES

Background:

- Weld permit loosely controlled
 - Procedures allow individual welders to sign on permits
 - No comprehensive list of personnel qualified to sign burn permits.
 - In one case, an individual did not accept responsibility as fire watch on a job
 - In one case, hot fire watch personnel were unsure of actions to take
- Evidence of smoking in a safety-related area

IGNITION SOURCES

Weaknesses:

- Complying with a less stringent site welding procedure
- Biennial review required of the site welding procedure not performed

IGNITION SOURCES

Corrective Actions:

- All hot work stopped until a new welding procedure was developed and training completed
 - New procedure includes sign-off by a responsible foreman
 - New procedure includes review of the work site by fire protection personnel
 - Responsible fire watches are required to sign onto the permit
 - Close-out inspection of the work area is performed by fire protection personnel
 - All fire watch personnel were retrained in the new procedure
- A new procedure for compensatory fire watches was developed and the personnel were trained.
- A new smoking standard was issued. We continue to inspect the plant for evidence of smoking.

PREPLANS

Background:

- Preplans are weak
 - Preplans do not contain enough information about combustibles
 - No specific extinguishants are given
 - Preplans list various accesses to areas
- NYPA planned to review and upgrade preplans as part of the fire protection program upgrade

PREPLANS

Corrective Actions:

- PrePlans will be revised in a two phase plan
 - The existing documents are being reviewed and expanded to address specific combustibles, extinguishing agents and access. Training will be conducted prior to start-up.
 - A new document controlling the development of preplans is being reviewed. At completion, a pre-plan similar in structure and content to Indian Point 3 will be written and training will again be conducted.



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FIRE WATCH TRAINING AND IMPLEMENTATION

BACKGROUND

- Training for fire watch personnel was initiated in April 1982 and included live fire extinguishment. The practice was suspended in February 1987 due to smoke visibility and environmental concerns.
- Prior to August 1991 all fire watch personnel were trained as "hot" fire watches.
- Training for "compensatory" fire watches began in August 1991 based on the need to increase the number of these watches and the economic necessity to use other than skilled craftsmen for "compensatory" fire watch assignment.
- Fire watch training program content has historically been the responsibility of one individual. Performance feedback from the field had not been solicited nor was any received.



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FIRE WATCH TRAINING AND IMPLEMENTATION

BACKGROUND(cont'd)

- NRC identified fire watch problems during fire protection inspection
 - In one case, a fire watch had to be coached on use of the paging system.
 - No hands on training or performance evaluation
 - No separate lesson plan for compensatory fire watch training
 - Training on selection, operation use of fire extinguishers inadequate
 - Fire watches could not identify specific equipment



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FIRE WATCH TRAINING AND IMPLEMENTATION

PROGRAM WEAKNESSES

- Lack of management involvement and supervisory oversight in fire watch program development and implementation.
- A systematic approach to training was not used to develop and implement fire watch training.
- Program effectiveness was not evaluated post-training nor was feedback solicited or received
- Periodic retraining was not required for continued Fire Watch Qualification

FIRE WATCH TRAINING AND IMPLEMENTATION

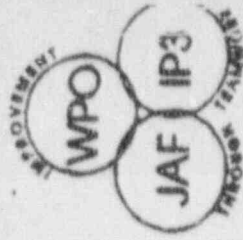
Safety Significance

There is minimum safety significance from the fire watch training weaknesses based upon the use of skilled craftsmen for hot fire watch and specific instructions to compensatory watches to notify the Control Room in the event of fire in the area.



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FIRE WATCH TRAINING AND IMPLEMENTATION

CORRECTIVE ACTIONS

- Conducted interim retraining based on identified concerns
- Issued revised "qualified" fire watch lists
- Conducted job/task analysis for both hot and compensatory fire watches
- Implemented both written and performance training evaluations
- Retrained all fire watch personnel
- Annual retraining required for continued qualification
- Improved supervisory oversight of Fire Protection training
- Augmented fire protection training with a second instructor in support of fire protection training upgrade



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FIRE BRIGADE TRAINING

BACKGROUND

- IAFNPP Fire Brigade training is the responsibility of one individual with the principal source of feedback being the Fire Protection Supervisor.
- Although enhancements were made to the brigade training program from 1982 to the present, there was very little interaction with other utilities in the area of fire protection training.
- Internal and external audits/evaluations of fire protection training had indicated a trend of generally acceptable performance which led to complacency
- Problems identified by NRC during Fire Protection Inspection
 - lesson plans not revised
 - lesson plans weak
 - lesson plans not performance based



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FIRE BRIGADE TRAINING

WEAKNESSES

- Performance standards loosely linked to classroom lessons
- Lesson plans lacked plant specific reference material
- Periodic review/update of lesson material was not required by the training program
- Fire Brigade training program had no periodic self assessment
- Based upon drill observation, and in the absence of adverse brigade performance feedback, an attitude of complacency had set in



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FIRE BRIGADE TRAINING

SAFETY SIGNIFICANCE

Safety significance of items identified in the Fire Brigade training materials is low. These items are addressed either in other portions of fire protection training or in the content of other training programs (i.e. Operator training, since 60 percent of the brigade, including the leader, are from Operations)

FIRE BRIGADE TRAINING

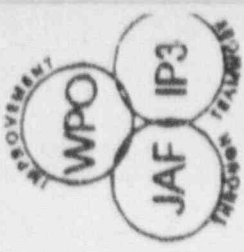
CORRECTIVE ACTIONS

- Completed an upgrade to the Fire Protection Training implementing procedure which includes:
 - Periodic program assessment
 - Lesson plan plant approval and periodic review/validation
 - Staff responsibilities and authority
 - Brigade performance objectives
 - Brigade member qualification and disqualification
 - Make-up and remedial training requirements
- Upgraded lesson plans to link brigade performance objectives and to include plant specific references where appropriate



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FIRE BRIGADE EQUIPMENT AND DRILLS

BACKGROUND

- Pre 1987, fire drill conduct was the sole responsibility of the Fire Protection Supervisor. Internal audit #571 indicated that not all brigade members had completed two in-plant drills.
- Similarly noted in the 1987 annual audit JAF-FPA-87 was the observation that drill performance was not addressed through any implementing procedure(s).
- The site training procedure was revised in 1987 to provide credit for practice and training exercises in the conduct of drills. This revision was made without reference to source documents, including Licensing Amendment 47 (specified requirements for in-plant, backshift, unannounced drills).

FIRE BRIGADE EQUIPMENT AND DRILLS

BACKGROUND(cont'd)

- Fire brigade drill and equipment problems identified by the NRC:
 - Training procedure did not require 3 month intervals, or one backshift/unannounced per year
 - Training procedure allowed walkthroughs, classroom exercises, practice sessions to count as drills
 - Not all brigade members met training requirements
 - Several drill performance weaknesses observed
 - Brigade equipment deficiencies noted

FIRE BRIGADE EQUIPMENT AND DRILLS

WEAKNESSES

- Site training procedure did not adequately address conduct of fire brigade drills.
- There is no administrative directive or surveillance for the conduct of fire brigade drills other than the training procedure.
- After 1987, conduct of fire brigade drills had distributed responsibility. There was no minimum coordination and oversight.
- Drill critiques seldom resulted in formal corrective action assignment.
- Drill performance objectives were not specific
- Attendance reporting was not accomplished as required
- Several brigade equipment deficiencies were not identified and corrected in a timely manner



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FIRE BRIGADE EQUIPMENT AND DRILLS

SAFETY SIGNIFICANCE

Although there is room for improvement in the JAFNPP Fire Brigade's performance, there is reasonable assurance based upon past performance that the brigade had the ability to conduct site fire fighting activities in a safe and effective manner.



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FIRE BRIGADE EQUIPMENT AND DRILLS

CORRECTIVE ACTIONS

- The completed site training procedure upgrade specifically addresses:
 - License Amendment 47 commitments
 - Drill responsibilities and authority
 - Drill performance objectives

- A Fire Brigade Upgrade Action Plan was implemented 04/21/92 and is on schedule for completion prior to plant start-up. The plan includes training on revised fire preplans.

- All shift fire brigades have demonstrated satisfactory performance in the conduct of unannounced, backshift drills

- The Fire Drill Report has been revised to identify performance or equipment deficiencies and input to Action Commitment Tracking (ACTS)



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ADEQUACY OF CORRECTIVE ACTIONS

- **Apparent violation for a lack of prompt and effective corrective actions required by 10CFR50, Appendix B, Criterion 16, to preclude the recurrence of Fire Protection Program weaknesses identified by Quality Assurance Audits**
- **Background**
 - **Technical Specifications Required Audits**
 - **Annual Audit (6.5.2.8.i) - Director of Safety and Fire Protection**
 - **Biennial Audit (6.5.2.8.h) - Director of Quality Assurance**
 - **Triennial Audit (6.5.2.8.j) - Director of Safety and Fire Protection**

ADEQUACY OF CORRECTIVE ACTIONS

- Weaknesses
 - Insufficient commitment by NYPA Management to correct identified deficiencies in the Fire Protection Program
 - Low standards of performance
 - Inadequate staffing
 - Inadequate management oversight and control
 - Prior to 1990, independent corrective action tracking system to document Fire Protection deficiencies

ADEQUACY OF CORRECTIVE ACTIONS

- **Corrective Actions**
 - **Previous Fire Protection Program Audits were reviewed and verified that Fire Protection were inputed into the QA Corrective Action System**
 - **Current Fire Protection Program Audits are performed within the Quality Assurance Administrative Process (QA Corrective Action)**
 - **Increased commitment by NYPA Management to promptly correct identified conditions**
 - **Improved training and procedures reflecting higher standards**
 - **Increased funds and staffing**
 - **Increased management oversight**



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Root Causes

- **Lack of Commitment to Fire Protection Program**
- **Inadequate Interface Between WPO and JAF**
- **Inadequate Staff Qualifications**

SUMMARY OF CORRECTIVE ACTIONS

Safe Shutdown Equipment

- NYPA Has Established a Fire Protection Organization Within Nuclear Generation That Is Responsible for the Resolution of all Concerns and the Development of a Fire Protection Program to Address the Programmatic Issues.
- NYPA has Designated the Fire and Instrument & Control Manager Responsible for the Fire Protection Program.
- NYPA Initiated and Completed JAFNPP's Safe Shutdown Capability Reassessment, of 10CFR50, Appendix R.
- NYPA is Completing Corrective Actions to Resolve Reassessment Deficiencies Identified in Our Letter.

SUMMARY OF CORRECTIVE ACTIONS

Lighting

- Operator Access/Egress Routes and Equipment Locations Requiring Additional Emergency Lighting Units were Identified.
- Modification No. F1-82-178 was Initiated to Install the New Units Identified.
- Work Request was Prepared to Repair Any Lighting Unit That Required Repair.
- A walkdown of Access/Egress Routes and Equipment Locations will be done to Verify Adequacy Using Established Acceptance Criteria.
- Review the Maintenance/Surveillance Requirements for Emergency Lighting Units as Specified in the Manufacturers' Technical Bulletin, EPRI's Report and Consultants Report.
- Revise Maintenance/Surveillance Procedures to Implement Results of Above Review and Documents that will Establish Specific Elements Associated with Maintenance/Surveillance, Testing, Lamp Orientation, and Illumination Levels.

SUMMARY OF CORRECTIVE ACTIONS

Combustibles/Ignition Sources/Preplans

- All plant work was stopped for a clean-up of excess combustibles
- Higher formal standards were introduced through plant directives and the commencement of procedure improvements.
- Additional trained inspectors are on site at a level commensurate with plant work
- Heightened management awareness and sensitivity to the issue of combustible loading.
- Combustibles permit system/procedure being developed.
- All hot work stopped until a new welding procedure was developed and training completed
- A new procedure for compensatory fire watches was developed and the personnel were trained.
- A new smoking standard was issued. We continue to inspect the plant for evidence of smoking.
- Preplans will be revised in a two phase plan

SUMMARY OF CORRECTIVE ACTIONS

Fire Watch and Brigade Training

- Interim fire watch retraining based on identified concerns
- Issued revised "qualified" fire watch lists
- Conducted job/task analysis for both hot and compensatory fire watches
- Implemented both written and performance fire watch training evaluations
- Retrained all fire watch personnel
- Annual fire watch retraining required for continued qualification
- Improved supervisory oversight of Fire Protection training
- Augmented fire protection training with a second instructor in support of fire protection training upgrade
- Completed an upgrade to the Fire Protection (brigade) Training implementing procedure.
- Upgraded lesson plans to link brigade performance objectives and to include plant specific references where appropriate

SUMMARY OF CORRECTIVE ACTIONS

Fire Brigade Equipment and Drills

- The completed site training procedure upgrade specifically addresses:
 - License Amendment 47 commitments
 - Drill responsibilities and authority
 - Drill performance objectives
- A Fire Brigade Upgrade Action Plan was implemented 04/21/92 and is on schedule for completion prior to plant start-up. The plan includes training on revised fire preplans.
- All shift fire brigades have demonstrated satisfactory performance in the conduct of unannounced, backshift drills
- The Fire Drill Report has been revised to identify performance or equipment deficiencies and input to Action Commitment Tracking (ACTS)

SUMMARY OF CORRECTIVE ACTIONS

Effective Corrective Action

- Previous Fire Protection Program Audits were reviewed and verified that Fire Protection were inputted into the QA Corrective Action System
- Current Fire Protection Program Audits are performed within the Quality Assurance Administrative Process (QA Corrective Action)
- Increased commitment by NYPA Management to promptly correct identified conditions
 - Improved training and procedures reflecting higher standards
 - Increased funds and staffing
 - Increased management oversight



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CORRECTIVE ACTION LICENSING

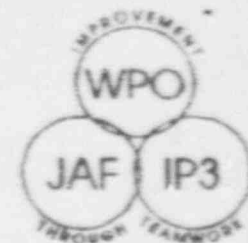
1. Licensing Verifies All References in Technical Specification Submittals
2. Business Plan Item 4.C.2

NUAP Which Will Establish A Standard For Documents Required
To Demonstrate Compliance With Regulatory Requirements



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NUCLEAR POWER PLANT



LER 88-09-01

"A" Side (Div I, West Crescent	● Reduced or no flow ● 1/4 Open On Normal Service Water Check Valve	"B" Side (Div II, East Crescent	● Reduced or no flow
UC 22A	● Located in East Crescent, 50% <u>estimated</u>	UC 22B	
UC 22C		UC 22D	Incorrect Water Line
UC 22E		UC 22F	
UC 22G		UC 22H	
UC 22J	1/2 Cooling Coils Removed	UC 22K	



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LER 88-09-01

- Several Crescent Area Unit Cooler Deficiencies Identified
 - Stuck Open Check Valve On Normal Supply
 - Blank Flange On Cooling Coil
 - Incorrect Piping Connections
 - Reduced (or no) Flow Due to Silting/Fouling
 - Ineffectiveness of One Unit Cooler Based on Location

- Deficiencies NOT Reflected in Operability Discussion (Analysis Section)

- Inspection Report is Correct



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LER 90-12-01

- Control Relay Room Ventilation Backup Supply From ESW ("A" Train) Plugged With Silt
- Credit Taken For "Normal" Cooling Which Depended on AHU's Supplied by "B" ESW.
- Loss of Redundancy Not Recognized
- Inspection Report Correct



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LER 90-025-01

- Voluntary LER
- Credit taken for Manual Action in the Reactor Building (to Isolate a Failed Check Valve)
- Reactor Building may not be accessible. Test LOCA
- Inspection Report Correct

ESW PUMP TECHNICAL SPECIFICATION
CHANGE REQUEST
(JPN-91-064)

SUBMITTAL EXCERPT

1. The proposed acceptance criteria was based on an ESW test, Reference 24, which demonstrated that each ESW pump could provide minimum flow to the components required following the DBA while also supplying RBCLCS components.
2. Calculations, Reference 25, based on test data, have further demonstrated that the ESW pumps have margin to operate below the ASME Section XI action level on their pump curves and still deliver minimum flow to components required for the DBA when the RBCLCS components are aligned.

NRC SSFI FINDING

1. The NRC SSFI team found this sentence incorrect since Reference 24 (TOP-117, "ESW Full Flow Test" did not demonstrate that each ESW pump could provide minimum flow. The combined flow to the crescent area coolers fell below the minimum required by JAF-SE-90-067 (R1, March 6, 1991).
2. The NRC SSFI team found calculation JAF-090-102, "Minimum Pump Head Requirement" to have a number of weaknesses not supporting the conclusion that 23% degradation would still allow minimum required flow to be provided to required components. Also, the statement about being based on test data is misleading. The model was not benchmarked using test data to establish flow resistance. Only a throttle valve position related to test data. The conclusion is also wrong since the tests did not support it.

ESW PUMP TECHNICAL SPECIFICATION
CHANGE REQUEST
(JPN-91-064)

NYPA RESPONSE TO FINDING

- The excerpted statements are incorrect and will require corrective action as identified below.

NYPA ACTIONS

- Resolve the question of isolating RBCLCS loads during normal operation and revise the proposed Technical Specification change request with one of the following options:
 - If RBCLCS loads are isolated, TOP-115 will be verified as a basis for changing the Technical Specification;
 - If RBCLCS loads are not isolated, any change to the Technical Specifications will be based on: operator action which must be justified, or the results of additional testing.
- The revised change request will not reference or use the hydraulic calculation unless it is benchmarked against tests and resolves the open issues.

Changes to Submittal

- Submit a revision to the Technical Specification change request to correct the errors.

GENERIC LETTER 89-13 RESPONSES (JPN-90-015 & JPN-91-015)

1. From NYPA Letter to the NRC, JPN-90-015, dated February 13, 1990

Submittal Excerpt

The Authority has established a program with written procedures for performance testing of safety-related heat exchangers using lake water at the FitzPatrick plant.

NRC SSFI Finding

The NRC SSFI team noted that performance testing was not being performed on the EDG jacket water coolers, which are normally cooled by lake water.

NYPA Response to Finding

- The statement in the licensing submittal is correct.
- Thermal performance testing was performed on EDG jacket water coolers.
- The test was deleted from program due to difficulties in obtaining useful data.
- NYPA submittal JPN-91-015, dated April 18, 1991, clarified that the EDG jacket water coolers would be inspected in lieu of testing.

GENERIC LETTER 89-13 RESPONSES (JPN-90-015 & JPN-91-015)

2. From NYPA Letter to the NRC, JPN-91-015, dated April 18, 1991

Submittal Excerpt

The Authority will not conduct performance testing of either the Control Room AHUs, Relay Room AHUs or the Emergency Diesel Generator Heat Exchangers. In lieu of performance testing, the Authority will conduct periodic visual inspections of these heat exchangers. **These heat exchangers are in closed-loop, glycol-based systems which are not prone to fouling.**

NRC SSFI Finding

The NRC SSFI team correctly noted the EDG jacket coolers are actually cooled by lake water.

NYPA Response to Finding

- The last sentence in the first paragraph is incorrect.
- The EDG jacket water coolers are closed-loop, ^{rust inhibitor} glycol-based on the shell side only.
- Raw lake water is on the tube side.

Changes to Submittal

- Clarify only the Control Room and Relay Room AHUs are closed-loop, glycol-based systems which are not prone to fouling.
- Clarify paragraph stating that EDG jacket coolers are not being tested because of difficulties in obtaining accurate thermal performance data.