May 10, 2000

Mr. Robert J. Barrett
Site Executive Officer
New York Power Authority
Indian Point 3 Nuclear Power Plant
Post Office Box 215
Buchanan, NY 10511

Subject: NRC INTEGRATED INSPECTION REPORT NO. 05000286/2000-001

Dear Mr. Barrett:

On April 2, 2000, the NRC completed an inspection at your Indian Point 3 reactor facility. The enclosed report presents the results of that inspection. During the eight-week period covered by the inspection, your staff conducted activities at the Indian Point 3 reactor facility with an adequate focus on safe plant operations. Your licensed operator requalification program contained good examination materials and the operating crews performed adequately. In addition, we observed adequate progress to address past performance issues concerning the Post-Transient Review Group. However, we observed one instance where plant operators were not aware of an instrument calibration in progress inside the control room, and several human performance errors involving procedural adherence in the areas of post-modification and surveillance testing. In these instances, we observed that appropriate management actions were initiated to resolve the issues and we will review their effectiveness during future inspections.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and the enclosure will be placed in the NRC Public Document Room (PDR). Should you have any questions regarding this report, please contact me at 610-337-5234.

Sincerely,

/RA/

Peter W. Eselgroth, Chief
Projects Branch 2
Division of Reactor Projects

Docket No.05000286
License No. DPR-64

Enclosure: Inspection Report No. 05000286/2000-001

cc w/encl:
C. D. Rappleyea, Chairman and Chief Executive Officer
E. Zeltmann, President and Chief Operating Officer
J. Knubel, Chief Nuclear Officer and Senior Vice President
F. Dacimo, Plant Manager
H. P. Salmon, Jr., Vice President of Engineering
W. Josiger, Vice President - Special Activities
J. Kelly, Director - Regulatory Affairs and Special Projects
T. Dougherty, Director - Nuclear Engineering
R. Patch, Director - Quality Assurance
G. C. Goldstein, Assistant General Counsel
C. D. Faison, Director, Nuclear Licensing, NYPA
K. Peters, Licensing Manager
A. Donahue, Mayor, Village of Buchanan
J. McCann, Department Manager of Nuclear Safety and Licensing
C. W. Jackson, Con Edison
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
Chairman, Standing Committee on Energy, NYS Assembly
Chairman, Standing Committee on Environmental Conservation, NYS Assembly
T. Morra, Executive Chair, Four County Nuclear Safety Committee
Chairman, Committee on Corporations, Authorities, and Commissions
The Honorable Sandra Galef, NYS Assembly
P. D. Eddy, Electric Division, Department of Public Service, State of New York
F. William Valentino, President, New York State Energy Research
and Development Authority
J. Spath, Program Director, New York State Energy Research
and Development Authority
C. Hehl, Incorporated
C. Terry, Niagara Mohawk Power Corporation
R. Toole
R. Schwarz
County Clerk, West Chester County Legislature
Westchester County Executive
Putnam County Executive
Rockland County Executive
Orange County Executive
T. Judson, Central NY Citizens Awareness Network
M. Elie, Citizens Awareness Network

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REGION I

Docket No.	05000286
License No.	DPR-64
Report No.	05000286/2000-001
Licensee:	Power Authority of the State of New York, trading as The New York Power Authority (NYPA)
Facility:	Indian Point 3 Nuclear Power Plant
Location:	P.O. Box 215 Buchanan, New York 10511
Dates:	February 1 - April 2, 2000
Inspectors:	Peter Drysdale, Senior Resident Inspector Jennifer England, Resident Inspector Steven Pindale, Reactor Inspector Melvin Gray, Reactor Inspector Joseph D'Antonio, Operations Engineer Steven Dennis, Operations Engineer
Approved by:	Peter Eselgroth, Chief Projects Branch 2 Division of Reactor Projects

EXECUTIVE SUMMARY

Indian Point 3 Nuclear Power Plant
NRC Integrated Inspection Report No. 05000286/2000-001

This inspection included aspects of licensee operations, maintenance, engineering, and plant support. The report covered an eight-week period of resident inspections, and included inspections by NRC Regional Office specialists in operations, maintenance, and plant support.

Operations:

During routine tours, the inspectors assessed the general plant equipment condition to be acceptable. The inspectors identified one instance where the control room operators were unaware of an ongoing calibration of a control room instrument (Section O2.1).

Following a walkdown of a portion of the weld channel and containment pressurization system and the safety injection system, the inspector concluded that the overall material condition of the systems was acceptable, and that system components were in their correct alignment (Section O2.2).

NYPA's short term corrective actions (management discussions and training) appeared adequate to correct two NRC identified human performance errors involving procedural non-compliance with administrative requirements during two test evolutions (Section O4.1).

One crew was observed during a licensed operator requalification program inspection. The quality of the examination material was good and overall the crew performed adequately. The post-scenario facilitator critiques were of appropriate length and captured all observed performance deficiencies (Section O5).

One instance was observed during a licensed operator requalification exercise where the crew did not appear to take all reasonable control room actions to start containment spray pumps when automatic initiation failed. EOP background documents did not clarify the expected actions; however, operators complied with their written procedures and training expectations. The licensee revised the EOP to add specific actions to start the containment spray pumps (Section O5).

NRC observations of the Plant Operating Review Committee weekly meeting determined that the meeting was performed adequately and was consistent with station expectations (Section O7.1).

NYPA adequately characterized and evaluated performance deficiencies associated with the Post-Transient Review Group following the August 12, 1999 reactor trip. Interim corrective actions taken were adequate to address these performance deficiencies (Section O8.1).

Executive Summary (cont'd)

Maintenance:

Maintenance activities observed were conducted satisfactorily and in accordance with applicable maintenance and administrative procedures. The corrective maintenance performed was satisfactory to resolve the deficient conditions (Section M1.1).

With the exception of the safety injection functional test, routine surveillance tests were conducted in accordance with procedural and administrative requirements. Test instrumentation was within the required calibration periods and all test acceptance criteria for operability were met (Section M1.2).

In general, the work control program was adequately managed and implemented in accordance with procedural requirements. The licensee used performance indicators effectively to monitor the corrective maintenance backlog and deferral of preventive maintenance activities (Section M1.3).

Overall, the licensee properly recorded equipment deficiencies in the corrective action system. However, the licensee did not initiate a DER for an unexpected response of a safety-related logic relay during testing, which was contrary to management expectations (Section M1.3).

The licensee completed maintenance activities observed by the inspector in accordance with applicable requirements. Work was completed with adequate supervisor oversight and controls for tag-out boundaries, foreign material exclusion and instrument calibration, and was accomplished in accordance with procedures and work instructions. The licensee adequately considered plant risk in scheduling maintenance work to be performed with the plant at power (Section M1.4).

NYPA's actions were timely in restoring Motor Control Center-38 to service following a trip of its supply breaker. The short term actions restored power to vital components and a detailed root cause evaluation was properly initiated (Section M2.1).

The licensee's critique of the 31 Emergency Diesel Generator quarterly preventive maintenance was adequate to identify improvements in work control and technical aspects of the job. However, until pointed out by the inspector, the improvements were not captured in a formal way to ensure they would be implemented during the next six-month preventive maintenance activity (Section M8.1).

Engineering:

The licensee used adequate engineering controls to assure that an equivalent instrument was used to replace a refueling water storage tank level indicator-controller, and that a formal design change was not necessary (Section E2.1).

Executive Summary (cont'd)

Plant Support:

Containment entry briefings were adequate in scope to address the planned activities, and containment entries were performed consistent with station procedures (Section R4.1).

The replacement of the technical support center diesel generator jacket water was conducted in accordance with station procedures (Section R4.2).

An NRC observed pre-job briefing and spent resin transfer were performed adequately and consistent with station expectations (Section R4.3).

NYPA's short-term corrective actions were adequate to correct an NRC identified deficiency in a degraded fire barrier for the 31 Source Range Nuclear Instrument. The fire barrier was quickly restored and returned to operability (Section F2.1).

Based on a limited review of the changes described in security plan revisions, no NRC approval of the changes was required in accordance with 10 CFR 50.54(p) (Section S3).

TABLE OF CONTENTS

EXECUTIVE SUMMARY ii

TABLE OF CONTENTS v

SUMMARY OF PLANT STATUS 1

I. OPERATIONS 1
- O1 Conduct of Operations 1
- O2 Operational Status of Facilities and Equipment 1
  - O2.1 Operational Safety Verification 1
  - O2.2 Safety System Walkdowns 2
- O4 Operator Knowledge and Performance 3
  - O4.1 Operations Human Performance Errors 3
- O5 Operator Training and Qualification 4
  - O5.1 Licensed Operator Requalification Training (LORT) Program Evaluation 4
- O7 Quality Assurance in Operations 8
  - O7.1 Plant Operating Review Committee Weekly Meeting 8
- O8 Miscellaneous Operations Issues 9
  - O8.1 Post-Transient Review Group Process 9
  - O8.2 (Closed) Licensee Event Report (LER) 2000-001-00: Mispositioned Valve that Could Prevent Use of Low to High Head Recirculation 10

II. MAINTENANCE 11
- M1 Conduct of Maintenance 11
  - M1.1 Maintenance General Comments 11
  - M1.2 Surveillance General Comments 11
  - M1.3 Work Control Program Review 12
  - M1.4 Work Control Field Observations 14
- M2 Maintenance and Material Condition of Facilities and Equipment 15
  - M2.1 Motor Control Center (MCC) - 38 Supply Breaker Trip 15
- M8 Miscellaneous Maintenance Issues 16
  - M8.1 31 Emergency Diesel Generator Preventive Maintenance and Surveillance Test Critique 16
  - M8.2 (Closed) Licensee Event Report (LER) 1998-005-01: Inoperable City Water Check Valves 17
  - M8.3 (Closed) LER 1999-004-00: Both Boric Acid Transfer Pumps Inoperable 17
  - M8.4 (Closed) LER 1999-007-00: Control Room Ventilation System Design Bases and Component Leakage Design Basis Not Met due to Safety Injection Valve Leakage. 17

III. ENGINEERING 18
- E2 Engineering Support of Facilities and Equipment 18
  - E2.1 Refueling Water Storage Tank Level Instrument Replacement 18

Table of Contents (cont'd)

IV. PLANT SUPPORT 19
R4 Staff Knowledge and Performance in RP&C 19
R4.1 Vapor Containment Entry Pre-Job Briefings 19
R4.2 Technical Support Center Diesel Generator Jacket Water Replacement 19
R4.3 Spent Resin Transfer 20
F2 Status of Fire Protection Facilities and Equipment 20
F2.1 Deficient Source Range Nuclear Instrument Fire Barrier 20
S3 Security Program Plans 21
X1 Exit Meeting Summary 21

ATTACHMENTS

Attachment 1 - Partial List of Persons Contacted
- Inspection Procedures Used
- Items Opened, Closed, and Discussed
- List of Acronyms Used

Report Details

SUMMARY OF PLANT STATUS

At the beginning of the inspection period on February 1, 2000, the plant was at 100 percent power. The plant remained at 100 percent power throughout the remainder of the inspection period which ended on April 2, 2000.

I. OPERATIONS

O1 Conduct of Operations

The inspectors conducted frequent reviews of ongoing plant operations. Specific events, noteworthy activities, and inspector observations are detailed in the sections below.

O2 Operational Status of Facilities and Equipment

O2.1 Operational Safety Verification

a. Inspection Scope (71707)

Throughout the inspection period, the inspectors performed regular tours in the control room, electrical switchgear room, auxiliary feedwater building, emergency diesel generator building, turbine building, and the primary auxiliary building.

b. Observations and Findings

General equipment condition in these areas was assessed to be acceptable. The inspectors observed regular operations shift turnovers and determined that they were performed consistent with station expectations. On February 2 and 28, the inspector observed nuclear plant operators (NPOs) performing a portion of their plant rounds. The NPOs were knowledgeable about monitored parameters and plant equipment operating limitations.

The inspectors performed periodic control room panel walkdowns to verify correct positioning of safety-related components. On March 28, the inspector observed the charging temperature indication (TI-126) changing. This indicator provides the temperature of the preheated charging fluid after it leaves the regenerative heat exchanger and just before it enters the reactor coolant system. The inspector questioned the operators about the status of this instrument, but they were unaware of the cause of the temperature indication changes. The control room supervisor contacted the facility support supervisor and was informed that a calibration of this instrument was in progress. Administrative Procedure AP- 19, “Surveillance Test Program,” requires the control room supervisor to review which signals are generated during testing and to ensure the necessary shift personnel are aware of testing in progress. This did not occur for this surveillance test. This procedural adherence deficiency constitutes a violation of minor significance and will not be subject to formal enforcement action in accordance with Section IV of the NRC Enforcement Policy.

c. Conclusions

During routine tours, the inspectors assessed the general plant equipment condition to be acceptable. The inspectors identified one instance where the control room operators were unaware of an ongoing calibration of a control room instrument.

O2.2 Safety System Walkdowns

a. Inspection Scope (71707)

The inspector walked down a portion of the weld channel and containment penetration pressurization (WCCPP) system and the safety injection (SI) system. The inspector verified the correct system configuration through observations of valve positions in the system flow path, and also assessed material condition of components.

b. Observations and Findings

On March 27, the inspector performed a walkdown of a portion of the WCCPP system. This system was designed to minimize leakage from the containment atmosphere to the surrounding environment by supplying a regulated supply of air to containment penetrations and containment liner weld channels during accident conditions. The inspector determined that the portion of the system observed was aligned properly. However, the inspector observed two different types of locks used to secure valves in the positions required by Check Off List COL-CB-2 “Weld Channel and Containment Penetration Pressurization System.” One type used was a large red or green lock with the color indicating the position of the valve. The colored locks were not required by COL-CB-2, but were required for valves aligned by COL-LV-1 “Locked Valve Check Off List.” However, COL-LV-1 was not used to align valves in the WCCPP system. Another type of lock used was smaller and was normally used for protective tagouts, but none of the smaller locks observed on WCCPP system valves were part of a protective tagout. This was discussed with the shift manager who informed the inspector that the smaller locks would be replaced with colored locks to maintain consistency.

On March 29 and 31, the inspector performed a partial system walkdown of the SI system. The walkdown included the refueling water storage tank (RWST) and its level indicators. The inspector reviewed a portion of the calculation IP3-CALC-SI-00725, “Instrument Loop Accuracy/Setpoint Calc. RWST Level,” and observed a discrepancy between a level indicator on the RWST (LIC-921) and the calculation assumption. This item is further discussed in Section E1.1.

c. Conclusions

Following a walkdown of a portion of the weld channel and containment pressurization system and the safety injection system, the inspector concluded that the overall material condition of the systems was acceptable, and that system components were in their correct alignment.

O4 Operator Knowledge and Performance

O4.1 Operations Human Performance Errors

a. Scope

The inspectors observed several operations activities and reviewed recent deficiency/event reports (DERs) involving human performance errors.

b. Observations and Findings

Modification Acceptance Test (MAT) 97-3-424-05

On February 23, the inspector observed a portion of the MAT "CO_2 System Heat Detectors and Supervisory Circuits Tests for Emergency Diesel Generator Cell 33." The inspector observed the test portion that verified the operation of the abort circuitry for the carbon dioxide fire suppression system. The set up for this verification isolated the carbon dioxide tank and aligned a temporary air truck to the carbon dioxide system piping. Test personnel adjusted the air pressure regulator at the truck to approximately 250 psig, and then opened the downstream piping to the tank. However, the pressure in this piping was still at CO_2 tank pressure (300 psig), and caused the pressure at the regulator to increase to 290 psig. Test personnel again isolated the temporary air supply, and depressurized the line. The inspector noted that the valve manipulations to depressurize this line were not included in the MAT, and were performed without procedural guidance. Administrative Procedure AP-3, "IP3 Procedure, Preparation, Review, and Approval," required that a temporary procedure change (TPC) be written for a change in a technical procedure, which was not done. The inspectors discussed the issue with licensee management and DER 00-0441 was written to document and evaluate this deficiency.

3PT-Q116B "32 Safety Injection (SI) Pump Functional Test"

On February 23, the inspector observed the pre-job briefing and a portion of the 32 SI pump periodic test. The briefing included the precautions and limitations pertaining to the test, the roles of all personnel involved, and their expected communications. This briefing was performed consistent with Administrative Procedure AP-19, "Surveillance Test Program." During the performance of the test the inspector observed that the NPO did not perform the procedure step that was to collect SI pump performance data. The inspector informed the NPO of this oversight and the step had to be performed out of the test sequence. The licensee initiated DER 00-0438 to document and evaluate this performance deficiency.

Corrective Actions

NYPA performed several corrective actions in response to the human performance errors identified by the NRC. These included an operations shift order to emphasize procedural adherence, discussion of the issues by the Assistant Operations Manager with all the operating crews, and a training session for all crews. These procedural adherence deficiencies constitute a violation of minor significance which, in accordance

with Section IV of the NRC Enforcement Policy, will not be subject to formal enforcement action.

c. Conclusion

NYPA's short term corrective actions (management discussions and training) appeared adequate to correct two NRC identified human performance errors involving procedural non-compliance with administrative requirements during two test evolutions.

O5 Operator Training and Qualification

O5.1 Licensed Operator Requalification Training (LORT) Program Evaluation

a. Inspection Scope (71001)

During the week of March 7, 2000, inspectors evaluated the Indian Point 3 licensed operator requalification program, which included 1) the LORT program content; 2) written and operating test content; 3) operating test administration; 4) training feedback program effectiveness; and 5) conformance with license conditions.

b. Observations and Findings

Content

The Job Performance Measure (JPM) and plant simulator examinations were of good quality and met the criteria of the examiners standards and 10CFR55.43, "Written Examinations: Senior Operators." The licensee was not administering a written examination during this inspection and had not administered a biennial written examination since the last requalification program inspection. No overlap was noted in that examination because all questions had been rewritten, or were newly written for that examination. The written examinations for this requalification cycle will commence in September 2000. NYPA's policy was to have no more than 50% overlap from week to week. The licensee is considering a policy in place to address overlap from weekly quizzes to the biennial exams.

The licensee's operational exam overlap policy was based on tracking exam scenarios seen by individuals, i.e., an individual will not be examined on a scenario he has seen in the prior year. The JPM exam overlap policy was that no overlap should exist, except in possible cases where a certain task was an identified weakness and examination on that task was a facility-specific concern. The inspectors considered these policies to be reasonable.

Administration and Evaluation

The licensee's exam grading was appropriate. Scenario critiques covered all critical tasks and examiner standard competencies, and were appropriately detailed and critical. Several minor performance deficiencies were captured. These deficiencies were discussed with the crew following completion of the examinations. The post-examination discussion and debriefing was led by the Assistant Operations Manager, was conducted in a manner that facilitated feedback and discussion from the crew, and clearly communicated management expectations concerning performance deficiencies.

The inspectors observed one deficiency that appeared to result from procedural wording. One of the examination scenarios involved a large break loss of coolant accident (LOCA) and the failure of containment spray (CS) to automatically actuate. Emergency Operating Procedure E-0, "Reactor Trip or Safety Injection," directed the operators to manually initiate CS; however, the operators had been trained that this meant they were to manually depress the CS initiation pushbuttons on the main control board. In the scenario administered, this action did not start the CS pumps, and the crew took no further action to initiate CS until an orange path was identified for the containment pressure critical safety function. As run in the scenario, two containment fan cooler units were also failed, which meant that less than design-basis containment pressure suppression capability was in service until a CS pump was started. The crew was not criticized by the training evaluators because the operators complied with their procedures as they had been trained to do. The inspectors reviewed the Emergency Operating Procedure (EOP) background document for E-0 and noted that the description in the step for CS initiation did not go into this level of detail, whereas there were more detailed steps for verifying emergency core cooling system (ECCS) flow. However, it was clearly the intent of this step that spray be initiated and it was a reasonable expectation that manual alignment from the control room should be attempted at this point rather than waiting for a critical safety function to be challenged.

The licensee intended to evaluate upgrading procedure E-0 so that CS pumps and valves would be manually aligned as necessary if automatic actuation fails, in a manner similar to the steps addressing verification of ECCS flow. Shortly after this inspection was completed, the licensee revised procedure E-0 to add specific actions for initiating containment spray by manually starting the pumps and aligning the system valves. The revision was based upon concurrence from the Westinghouse Owner's Group on the need for more specific directions in the background document for procedure E-0 to assure containment spray has initiated when necessary following a large break LOCA.

The overall results of the examinations were that one individual failed one JPM. All individuals passed the overall examination.

Risk Insights

The inspectors reviewed the Individual Plant Examination (IPE) executive summary and noted there was an "insights and recommendations" section which identified significant operator actions. All of these actions were addressed in procedures which operators were trained on, were evaluated in simulator scenarios, or were demonstrated in the

licensee's JPMs. During this inspection, the inspectors observed approximately half of these actions in simulator scenarios or JPMs.

Remediation

The inspectors reviewed the licensee's remediation practices and examples of evaluation and remediation for five individuals who had failed the last biennial written examination, as well as two crews and two individuals who had failed an annual operating examination. The inspectors verified that these individuals and crews were verified to have been properly remediated and re-evaluated in accordance with the licensee's program. In one of the above instances, and in four other cases, the individual license was terminated based on repeated problems with performance in the requalification program.

The inspectors reviewed training attendance and noted a small number of classes were missed by individuals in training. In all instances, these were made up in accordance with program requirements.

Feedback

The inspectors interviewed shift operations personnel and reviewed training material to assess the licensee's evaluation of plant and industry events and response to trainee identified problems.

During the inspection, the licensee was administering classroom and simulator training that addressed a plant trip in August 1999 which resulted from the loss of an instrument bus. This training was in response to an action item resulting from the DER written for the trip. The inspectors observed portions of the simulator training, which consisted of scenarios involving a loss of each of the four instrument busses, and was followed by a discussion of the effects and plant response to the loss of the bus. The scenarios were well run, and the booth and floor instructors appeared to be well prepared for the session. They involved the students in active participation in the post-scenario discussions rather than simply delivering a lecture.

Industry events were not addressed as separate lesson plans, but were incorporated into lesson plans for the relevant systems or simulator scenario events. The inspectors reviewed training examples that included 1) a loss of the residual heat removal (RHR) system incorporating NRC Generic Letter 98-02, 2) fuel handling operations addressing inadvertent draindown events discussed in NRC Information Notice 99-14, 3) plant shutdown evolutions discussing an Institute of Nuclear Power Operations (INPO) noteworthy event concerning a power-operated relief valve (PORV) lift at Catawba, and 4) a residual heat removal (RHR) lesson plan incorporating several plant-specific and NRC documented events.

Trainee feedback was provided by several means. The formal method was a feedback form distributed to the trainees early in the training week. Other methods included e-mail or comments to instructors. NYPA formerly tracked items evaluated as requiring action in a computer database. The inspectors reviewed some comments resulting from student feedback and noted that the training department did respond to these

comments. The operations personnel interviewed by the inspectors stated that the training staff responded quickly to matters within their control, did a good job in regards to student questions, and considered the program to be well run overall.

The licensee also modified operator training as appropriate based on identified needs. One example was that the licensee had adopted the practice of evaluating non-control room supervisor (CRS) qualified SROs in the CRS position during weekly training cycles. This was based on observed difficulties during prior requalification examinations.

Compliance with License Conditions

The inspectors' review of records and discussions with licensee personnel found that the licensee was meeting the requirements of the following regulations:

- 10 CFR 55.53 for conditions of operator licenses.
- 10 CFR 55.21 for medical examinations of operators.
- 10 CFR 55.49 for licensed operator examination integrity.

Simulator Fidelity

The inspectors observed that simulator fidelity discrepancies were discussed with the crew prior to the examinations and did not have significant impact upon the examination. Simulator availability was documented to be 99.7%. During this examination, a simulator computer problem occurred which required one scenario to be backtracked and restarted, and resulted in a delay of approximately twenty minutes. Operations personnel interviewed considered fidelity to be excellent and trusted simulator behavior when plant behavior questions needed resolution. The inspectors reviewed the simulator discrepancy backlog and found it to be minimal.

(Closed) Unresolved Item (URI) 1999010-01 Inattentive Control Room Supervisor

This unresolved item addressed an observation by the NRC Senior Resident Inspector (SRI) of a Control Room Supervisor (CRS) who appeared to be inattentive to his duties for a period of several minutes at approximately 5:45 a.m. on January 27, 2000. The SRI had observed the individual with his feet up on a desk and head back, although he was unable to ascertain whether the CRS's eyes were closed. The inspector reviewed the licensee's investigation of the event and interviewed the CRS and his Shift Manager.

The licensee was able to document by personnel interviews, security access records, and the observations of the SRI that the CRS was actively performing a work related task no more than ten minutes before the inspector's observation and immediately after that observation. The individual acknowledged and understood that his posture as observed by the SRI did not meet management expectations, and indicated his awareness and respect for the expectations placed upon him as a licensed operator. The licensee took prompt action in response to the SRI's observation, including removal of the individual and his supervisor from Technical Specification required licensed responsibilities until completion of an investigation into this event. Further corrective actions included self improvement plans for both individuals.

The inspectors evaluated the available facts, observations, and interviews, and determined that while a lapse in facility management expectations of appropriate control room demeanor occurred, there was not sufficient evidence to conclude that the individual was inattentive to his duties, or that a violation of NRC requirements occurred. This item is closed.

c. Conclusions

One crew was observed during a licensed operator requalification program inspection. The quality of the examination material was good and overall the crew performed adequately. The post-scenario facilitator critiques were of appropriate length and captured all observed performance deficiencies.

One instance was observed during a licensed operator requalification exercise where the crew did not appear to take all reasonable control room actions to start containment spray pumps when automatic initiation failed. EOP background documents did not clarify the expected actions; however, operators complied with their written procedures and training expectations. The licensee revised the EOP to add specific actions to start the containment spray pumps.

O7 Quality Assurance in Operations

O7.1 Plant Operating Review Committee Weekly Meeting

a. Inspection Scope (71707)

The inspector observed a portion of the weekly Plant Operating Review Committee (PORC) meeting and reviewed two safety evaluations approved during the meeting.

b. Observations and Findings

On February 8, the inspector observed a portion of the weekly PORC meeting. This meeting discussed recent plant issues including configuration control, plant operator attentiveness, and several safety evaluations. The inspector reviewed the requirements of Administrative Procedure AP-2, “Plant Operating Review Committee,” and determined that the proceedings of the meeting and the manner in which review items were dispositioned met station expectations. The inspector reviewed a portion of two safety evaluations which were approved by the PORC. The safety evaluations were Nuclear Safety Evaluation (NSE) 00-3-025 EHT, “Response Time Evaluation for the Boric Acid Heat Trace Redundant Circuitry,” and 00-3-023 CVCS, “Plant Impact Evaluation due to Lack of Availability of Excess Letdown.” The inspector determined that these safety evaluations were adequate.

c. Conclusions

NRC observations of the Plant Operating Review Committee weekly meeting determined that the meeting was performed adequately and was consistent with station expectations.

O8 Miscellaneous Operations Issues

O8.1 Post-Transient Review Group Process

a. Inspection Scope (71707)

Following an August 12, 1999 reactor trip, the NRC identified that the Post-Transient Review Group (PTRG) responded poorly with respect to NYPA's administrative guidance for post-transient evaluations. During the current inspection period, the inspector reviewed NYPA's characterization and evaluation of the PTRG performance deficiencies. The inspector reviewed the existing PTRG administrative guidelines, interviewed responsible station personnel, and reviewed PTRG evaluations that were completed subsequent to the August 12 reactor trip.

b. Observations and Findings

NYPA completed a critique of the forced shutdown associated with the August 12, 1999, reactor trip. The critique identified several areas of concern related to PTRG organization and communications; and also determined that the associated procedural guidance was weak and expectations were not clearly defined. Several action items resulted from the critique, and included assignments to: 1) review and revise the PTRG procedure; 2) identify a PTRG chairman roster and train the candidates on leading PTRG evaluations; and 3) review and enhance the guidance for event recollection forms. The inspector found that although these and other actions have not yet been completed, NYPA had instituted effective interim actions to ensure improved PTRG performance and communications.

The inspector reviewed two PTRG evaluations that had been completed subsequent to the August 1999 PTRG evaluation. These evaluations were performed for the inadvertent draindown of reactor coolant during residual heat removal operations on October 10, 1999; and for an Unusual Event resulting from a reactor coolant system leak in a flow transmitter on October 17, 1999. Overall, the inspector found that these two PTRG reviews were conducted appropriately and effectively, and were an indication that the interim corrective actions were effective. The inspector identified minor issues with the use of event recollection forms. In one instance, three operators were identified as the individuals responsible for the statements on one form. The use of more than one individual generated a consensus statement rather than an individual account or recollection of the associated event. The inspector also identified additional minor deficiencies regarding the completeness of the event recollection forms. The inspector informed operations management of these issues, who stated that these concerns would be considered in their ongoing PTRG procedure and process reviews.

In the PTRG evaluation for the October 17, 1999 event, the inspector observed that NYPA had identified that the paper for one of the chart recorders (containment dewpoint recorder) was installed upside down and that the paper scale was a different range than the chart recorder. In order to evaluate the associated corrective actions, the inspector reviewed the documentation of this deficiency in NYPA's corrective action system (ACTS No. 99-45404) and toured the control room to observe whether additional similar

deficiencies existed. Three minor deficiencies were identified during the tour. The first was the same containment dewpoint recorder problem, which had not been resolved because of continued problems with purchasing the proper paper for an obsolete recorder. The licensee's corrective efforts were ongoing during this inspection. There were also two other chart recorders that appeared to have similar minor paper deficiencies. In response, NYPA conducted a complete walkdown of all required recorders, but no additional deficiencies were identified. The inspector considered that NYPA promptly evaluated and was addressing the minor recorder deficiencies.

c. Conclusions

NYPA adequately characterized and evaluated performance deficiencies associated with the Post-Transient Review Group following the August 12, 1999 reactor trip. Interim corrective actions taken were adequate to address these performance deficiencies.

O8.2 (Closed) Licensee Event Report (LER) 2000-001-00: Mispositioned Valve that Could Prevent Use of Low to High Head Recirculation

This LER documented that a safety injection valve (SI-1863) was found closed during an extent-of-condition review following the licensee's inability to establish excess letdown on January 11, 2000. SI-1863 is required to be open during power operations, and placed the plant outside its design basis when closed since it is part of a required backup flowpath for high-head recirculation. NYPA determined the cause of the event to be an inadequate procedure. System Operating Procedure SOP-RP-20, "Draining the Refueling Cavity," was inadequate because it did not place SI-1863 in the position required by its full-power checkoff list (COL-RHR-1) after the refueling cavity was drained, or before plant power operations. The licensee's corrective actions were 1) to immediately reposition the valve, 2) to issue a shift order requiring operations to review procedures performed on safety-related systems against the check off list to ensure the as-left configuration was consistent with the check off list configuration, 3) to issue a revision to SOP-RP-20, and 4) to re-perform the check off lists for the accessible portions of all safety-related systems. These issues were reviewed in Inspection Report 1999010 and resulted in a non-cited violation of NRC requirements. Based on an in-plant review, the inspectors determined that the event report was submitted in accordance with 10 CFR 50.73 and was acceptable. This LER is closed.

II. MAINTENANCE

M1 Conduct of Maintenance

M1.1 Maintenance General Comments

a. Inspection Scope (61726, 62707, 37551)

The inspectors reviewed selected maintenance work activities and supporting work documentation. Activities were selected based on the systems, structures, or components contained within the scope of the maintenance rule and risk significance.

b. Observations and Findings

The inspectors observed all or portions of the following maintenance activities:

- WR 00-00018-00 : Meggars of Motor Control Center 38 Loads
- WR 99-05281-00: Toxic Gas Monitor Troubleshooting
- WR 99-01861-00: Heat Exchanger-022-EDG Emergency Diesel Generator Six-Month Preventive Maintenance
- WR 99-03041-00: FAN-007-VSS “Inspection/Maintenance of Fan Cooler Unit Dampers” for 32 Fan Cooler Unit
- WR 99-03041-05: MTR-003-GEN “Motor Inspection/Repair” for 32 Fan Cooler Unit
- WR 99-04759-00: Flux Drive ‘D’ Did Not Insert or Scan in Auto and Did Not Record Out in Location L-13
- WR 00-01345-00: Feed to Plant Computer from 34 S/G Atmospheric Steam Dump Not Reading Correctly
- WR 99-04702-00: Perform Calibration in Accordance with IC-PC-IP-32DSA

c. Conclusions

Maintenance activities observed were conducted satisfactorily and in accordance with applicable maintenance and administrative procedures. The corrective maintenance performed was satisfactory to resolve the deficient conditions.

M1.2 Surveillance General Comments

a. Inspection Scope (61726)

The inspectors reviewed selected surveillance test activities and their supporting documentation. The activities were selected based on systems within the scope of the maintenance rule and their risk significance.

b. Observations and Findings

The inspectors observed all or portions of the following surveillances:

- 3PT-Q117, “Containment Spray Functional Test”

- 3PT-R60A, “Auxiliary Feedwater Flow Rate Check and Calibration”
- 3PT-Q116B, “Safety Injection Pump Functional Test” (See Section O4.1)
- 3PT-M79B, “32 EDG Functional Test”
- 3PT-M07B, “RPI Analog System Functional Test, Shutdown Banks C & D”

c. Conclusions

With the exception of the safety injection functional test, routine surveillance tests were conducted in accordance with procedural and administrative requirements. Test instrumentation was within the required calibration periods and all test acceptance criteria for operability were met.

M1.3 Work Control Program Review

a. Inspection Scope (62700)

During the week of March 6 through 10, 2000, the inspector reviewed the licensee’s work control process to verify that maintenance activities for structures, systems, and components are being conducted in a manner that supports the reliable and safe plant operation. The inspector focused on work control, the effectiveness of maintenance to prevent and correct equipment deficiencies, and the maintenance backlog. The inspector interviewed licensee personnel, reviewed work packages and procedures, reviewed performance indicators, and attended daily plant status meetings.

b. Observations and Findings

The inspector observed that the licensee had controls in place to manage the corrective maintenance backlog. The inspector reviewed the licensee’s weekly performance indicator document dated February 28, 2000, and observed that performance indicators tracked both the number of corrective maintenance (CM) work requests in the backlog and the average age of CM work requests. The CM backlog number was reported daily in the “Plan of the Day/Plant Status Report.” During the week of March 6, 2000, the licensee also began listing the average age of CM work requests to be worked online.

The licensee classified CM work requests in the backlog as either online work to be scheduled within the twelve week work process (non-outage), or as outage work. With regard to the online CM work request backlog, the inspector observed that the trend decreased slightly from 314 and 291 work requests during the week of March 6. The performance indicator chart listed IP3 management’s goal of lowering the CM backlog to less than 250 work requests. For work requests scheduled for the next refueling outage, the inspector observed a minor increase from 528 to 530 work requests during the week of March 6.

The licensee appropriately categorized incoming work requests as corrective maintenance where required. Procedure SPO-SD-01, “Work Control Process,” identified the various categories of work requests. The licensee defined the CM backlog as those work requests categorized as either Type “A,” “B,” or “L.” Type A was corrective maintenance, Type B was corrective maintenance identified during surveillance tests, and Type L was corrective maintenance required on components

worked within the previous twelve months. The inspector reviewed a sample of other types of work requests in the backlog to verify that the appropriate work requests were categorized as corrective maintenance.

In reviewing a sample of the CM backlog, the inspector identified an issue regarding a work request for an Engineered Safety Feature (ESF) logic relay. On February 10, 2000, the licensee performed a logic functional surveillance test of the Safety Injection System, Train A. During the surveillance, maintenance personnel observed that a logic relay associated with loop 3 low steam line pressure "hummed and chattered" upon releasing a test switch. Maintenance personnel indicated that the relay stopped chattering after approximately five seconds. The condition was entered into the work control process and planned as work request (WR) 00-01541-00; however, this work request was on hold for Instrumentation and Controls (I&C) engineering review prior to further troubleshooting. In reviewing this issue, the inspector questioned whether a DER had been initiated for the chattering relay and the licensee confirmed one had not been issued.

Procedure SPO-SD-01 stated that operability and reportability reviews should be documented in the Deviation/Event Report (DER) process, as described in Administrative Procedure AP-8, "Deviation and Event Report Initiation." The DER process would also address causes of the performance problem, the extent-of-condition, and corrective actions. In addition, AP-8 indicated that NYPA management expected a DER to be initiated if a problem is unexpected and requires follow-up. The inspector noted that a similar problem occurred in August 1999 during a functional test of the B-Train ESF logic associated with loop 3 and was documented in a DER (99-01732). Similarly, the inspector considered that the unexpected chattering and humming response of the A-Train ESF logic relay should have been entered into the DER process to address the basis for operability, reportability, extent-of-condition, and corrective actions. While there was no operability issue with the A-Train relay, the performance problem was repetitive, and a DER would have provided an opportunity to reassess the scope and scheduling of previously identified corrective actions. The inspector considered this to be an example of inconsistent use of the corrective action program. On February 10, 2000, the licensee initiated DER-00-00566 to address the A-Train ESF logic relay.

The inspector also reviewed the licensee's control of preventive maintenance (PM) work requests. The inspector reviewed Procedure AP-55, "Preventive Maintenance Program," discussed the program with the PM coordinator, and reviewed PM performance indicators published weekly. The licensee's procedure included controls on the deferral of PM work requests. PM work requests that were within 125% of their frequency were considered to be within the "grace period," and those beyond that date were considered overdue. The PM program included approximately 4500 PM work activities conducted on either single components or on groups of similar components. The PM performance indicators published on February 28, 2000, indicated that 162 PM activities were within the grace period, and six were overdue. The inspector reviewed the list of PM work activities in the grace period and overdue, and determined that the basis was properly documented with the required level of approval in accordance with the licensee's procedure requirements.

c. Conclusions

In general, the work control program was adequately managed and implemented in accordance with procedural requirements. The licensee used performance indicators effectively to monitor the corrective maintenance backlog and deferral of preventive maintenance activities.

Overall, the licensee properly recorded equipment deficiencies in the corrective action system. However, the licensee did not initiate a DER for an unexpected response of a safety-related logic relay during testing, which was contrary to management expectations.

M1.4 Work Control Field Observations

a. Inspection Scope (62700)

The inspector reviewed work packages and procedures, observed work control activities in the field related to maintenance in progress.

b. Observations and Findings

The inspector observed the work control process implemented by planning and maintenance personnel during field activities that supported the following maintenance work:

- 1A air compressor and dryer preventive maintenance
- 33 charging pump fluid drive coupler air line replacement
- 32 station battery and charger surveillance
- 31 service water pump replacement
- Reactor Protection System relay wiring identification
- Reactor Water Storage Tank low-low level indicator surveillance and replacement

For the maintenance activities listed above, the inspector determined that job packages were approved by the appropriate operations personnel, maintenance supervisor oversight was adequate, work was completed within approved protective tag-out boundaries, procedures and work request instructions were of appropriate detail to the job, equipment used was calibrated within the required date, foreign material exclusion control was established, and technical specification limiting condition for operation requirements were met. The inspector also observed that maintenance supervisors appropriately initiated DERs for conditions adverse to quality, such as parts issues and discrepancies within work packages and procedures.

The inspector noted that the licensee appropriately considered plant risk in scheduling work activities with the plant at power. Procedure SPO-SD-03, “On-Line Work Scheduling Process,” identified risk significant systems and the components within these systems that make them risk significant. The procedure indicated that only one risk significant system should be unavailable at a time. If more than one was to be unavailable for scheduled online maintenance, then further review would be required. The inspector reviewed the licensee’s maintenance work schedule for the week of

March 6, 2000, and observed that system outages were limited to one risk-significant system. The inspector also reviewed the licensee's approval process for the work week schedule and observed that the Probabilistic Risk Assessment Group reviewed the schedule for risk management considerations. Risk considerations were reflected in the plan of the day/plant status report each morning, and risk significant activities were listed with comments as to why the licensee considered the activity to be risk significant.

c. Conclusions

The licensee completed maintenance activities observed by the inspector in accordance with applicable requirements. Work was completed with adequate supervisor oversight and controls for tag-out boundaries, foreign material exclusion and instrument calibration, and was accomplished in accordance with procedures and work instructions. The licensee adequately considered plant risk in scheduling maintenance work to be performed with the plant at power.

M2 Maintenance and Material Condition of Facilities and Equipment

M2.1 Motor Control Center (MCC) - 38 Supply Breaker Trip

a. Inspection Scope (71707, 62707)

The inspector reviewed NYPA's actions following the trip of the supply breaker to MCC-38.

b. Observations and Findings

On February 10, the MCC-38 supply breaker tripped on short time overcurrent and caused a control room annunciator to alarm for the loss of a control rod drive mechanism (CRDM) cooling fan. MCC-38 provides power to all four CRDM fans, the reactor coolant drain tank pumps, the containment sump pumps, and the reactor cavity sump pumps. The MCC output breakers for the above loads opened on undervoltage and de-energized all of the motors listed above. The licensee subsequently closed the supply breaker to restore power to the MCC, and then closed the 31, 33, and 34 CRDM fan breakers. However, the 32 CRDM breaker would not remain closed and its fan would not start. Off-Normal Operating Procedure ONOP-EL-7, "Loss of 480V Bus - Above Cold Shutdown," stated that the CRDM fans must be restored within 30 minutes to prevent overheating of the CRDM operating coils. The procedure also required a manual reactor trip if the CRDM fans could not be restored within the 30 minute limit. The licensee consulted with Westinghouse and determined that the basis for the 30 minute limit was related to the maximum allowable CRDM coil temperature of 350°C. However, Westinghouse concurred that sustained plant operations could continue for at an extended period (months) with two CRDM fans in operation, providing the CRDM coil temperatures remained below the maximum.

The licensee promptly investigated several conditions that could cause the 32 CRDM fan breaker to trip and prevent the fan from starting. Initial troubleshooting included meggar checks of the 32 CRDM fan, the containment sump pumps, and the reactor

cavity sumps, but no short circuit was found. A potential for reverse fan windmilling from mispositioned louvers and high starting current was also investigated, but the fan louvers were verified shut. An inspection of the 32 CRDM fan motor breaker unit was also performed which identified a loose control circuit wire and broken auxiliary switches. These deficiencies were subsequently repaired, and fan operation was restored.

The licensee was not able to identify a cause for the MCC-38 supply breaker to trip. Maintenance personnel investigated the possibility of an improperly set or deficient amptector module (overcurrent detector); however, an as-found test indicated it was set properly. The licensee replaced the amptector module and generated DER 00-00334 to initiate a further investigation. The amptector was sent to Westinghouse for detailed troubleshooting and failure analysis. A repeatability problem was observed with the amptector setpoint; however, the failure analysis was still ongoing at the end of the inspection period.

c. Conclusions

NYPA's actions were timely in restoring Motor Control Center-38 to service following a trip of its supply breaker. The short term actions restored power to vital components and a detailed root cause evaluation was properly initiated.

M8 Miscellaneous Maintenance Issues

M8.1 31 Emergency Diesel Generator Preventive Maintenance and Surveillance Test Critique

a. Inspection Scope (71707, 62707, 92700)

The inspector observed the critique after the 31 emergency diesel generator (EDG) six-month preventive maintenance (PM) and surveillance test activities.

b. Observations and Findings

On February 23, the inspector observed the licensee's critique following the six-month PM and surveillance test of the 31 EDG. The technical specification limiting condition for operation (LCO) for the 31 EDG was scheduled to last 11 hours; however, the actual LCO time was 12 hours and 20 minutes. Complications with the evolution included the wrong revision of the system operating procedure present in the EDG cell, a lengthy time to issue the clearances, and an improper torque value specified in a work package. The results of the critique included the need for management attention during the performance of the protective tag out and the need for a plan for restoring the EDG to service. The inspector noted that suggested improvements mentioned in the post-work critique were not documented or captured in a formal way to take appropriate corrective actions, or to incorporate them back into the work planning process. Administrative Procedure AP-53, paragraph 4.9.2, stated that the results of post-work critiques shall be reported to responsible department managers who should ensure that required corrective actions are accomplished. The licensee acknowledged that capturing critique

comments and enhancements should be documented and that the AP-53 wording should be more explicit to assure this is documented and accomplished as intended.

c. Conclusions

The licensee's critique of the 31 Emergency Diesel Generator quarterly preventive maintenance was adequate to identify improvements in work control and technical aspects of the job. However, until pointed out by the inspector, the improvements were not captured in a formal way to ensure they would be implemented during the next six-month preventive maintenance activity.

M8.2 (Closed) Licensee Event Report (LER) 1998-005-01: Inoperable City Water Check Valves

This LER documented insufficient flow in the city water line that backs up the component cooling water system to the charging pump fluid drive coolers during a scheduled Technical Specifications surveillance test. This issue was reviewed with LER 1998-008-00 in NRC inspection report 1999-002. Based on an in-office review, this LER is closed.

M8.3 (Closed) LER 1999-004-00: Both Boric Acid Transfer Pumps Inoperable

This LER documented the inoperability of both boric acid transfer pumps (BATP). The 33 emergency diesel generator was inoperable as the result of corrective maintenance. The 33 EDG is the emergency power supply for the 31 BATP. The 32 BATP was discovered inoperable because the thermal overloads for the breaker were undersized. The licensee's corrective actions included the replacement of the thermal overloads. This issue was reviewed in Inspection Report 1999-002 and resulted in a non-cited violation of NRC requirements. Based on an in-office review of the LER, the inspectors determined that it was submitted in accordance with the requirements of 10 CFR 50.73, and was acceptable. This LER is closed.

M8.4 (Closed) LER 1999-007-00: Control Room Ventilation System Design Bases and Component Leakage Design Basis Not Met due to Safety Injection Valve Leakage.

This issue concerned the licensee's identification of excessive leakage from the packing of safety injection drain valve SI-105. The leakage from the packing was 0.083 gallons per hour (gph). When this leakage was added to the existing leakage from other portions of the external recirculation system, the total leakage exceeded the design basis calculation assumption of 0.7 gph, which was used to support the design of the control room ventilation system. The licensee had an existing operability determination to demonstrate that the control room ventilation system, although degraded, would perform its plant design basis function. NYPA determined that the cause of the leakage was the result of normal wear of packing, and subsequently tightened the packing to reduce the leakage. Additionally, the licensee replaced the packing during the last refueling outage. The inspector concluded the licensee's corrective actions in response to the excessive leakage from the safety injection drain valve were appropriate. No violations of NRC requirements were identified. The event report was submitted in

accordance with the requirements of 10 CFR 50.73, and was determined to be acceptable. This LER is closed.

III. ENGINEERING

E2 Engineering Support of Facilities and Equipment

E2.1 Refueling Water Storage Tank Level Instrument Replacement

a. Inspection Scope (38703)

The inspector reviewed the technical evaluation and calculation for the refueling water storage tank level instrument, LIC-921.

b. Observations and Findings

The inspector reviewed the technical evaluation for the change to the refueling water storage tank (RWST) level indicator-controller (LIC-921). The instrument was used to provide local RWST level indication, and to provide a control room alarm at the tank's low-low level setpoint. The original level instrument had a range of 0 to 45 feet and was replaced with a level indicator with a range of 0 to 40 feet. The inspector noted that this change to the plant would require a revision to the setpoint calculation and the periodic test and calibration for LIC-921. Calculation IP3-CALC-SI-00725 "Instrument Loop Accuracy/Setpoint Calculation/RWST," contained several references to the range of the instrument, and periodic test, 3PT-Q83 "Refueling Water Storage Tank Lo-Lo Level Instrumentation System Check and Calibration, "contained steps to calibrate the forty five foot increment on the level detector.

The licensee selected the Technical Equivalency Evaluation process to perform this change to the plant, and initiated two action/commitment tracking system (ACTS) items to implement the change, i.e., one to change calculation IP3-CALC-SI-00725, and one to change the surveillance test The licensee then replaced the instrument on the RWST and left the ACTS items open for future resolution. The technical evaluation process did not require the calculation to be changed prior to replacing LIC-921; and the licensee considered that revisions to the existing calculation and test procedure would be bounded by the existing documentation. The inspector reviewed the licensee's documentation associated with the technical evaluation for LIC-921, and discussed with engineering personnel the applicable procedures used to determine that the new instrument did not constitute a modification to the plant. The technical equivalency evaluation was conducted in accordance with the licensee's procedures and adequately justified replacement of the instrument without a formal design change.

c. Conclusions

The licensee used adequate engineering controls to assure that an equivalent instrument was used to replace a refueling water storage tank level indicator-controller, and that a formal design change was not necessary.

IV. PLANT SUPPORT

R4 Staff Knowledge and Performance in RP&C

R4.1 Vapor Containment Entry Pre-Job Briefings

a. Inspection Scope (71750)

The inspector observed several vapor containment pre-job briefings.

b. Observations and Findings

The inspector observed several vapor containment entry briefings and accompanied the licensee on several vapor containment entries. Procedure RE-REA-4-6 “Containment Entry at Power or Initially after Shutdown,” and System Operating Procedure SOP-CB-2 “Containment Entry and Egress,” contained the licensee’s requirements for containment entry pre-job briefs and for containment entries. The inspector observed containment entry briefings on February 7, February 10, March 2, and March 3. The inspector also observed containment entries on February 10, March 2, and March 3, and considered that these activities were performed consistent with station procedures.

c. Conclusions

Containment entry briefings were adequate in scope to address the planned activities, and containment entries were performed consistent with station procedures.

R4.2 Technical Support Center Diesel Generator Jacket Water Replacement

a. Inspection Scope (71750)

The inspector observed a portion of the evolution to replace the jacket water in the technical support center (TSC) diesel generator.

b. Observations and Findings

On February 29, the inspector observed a portion of the replacement of the TSC diesel generator jacket water. The water was replaced to enhance the chemistry in the cooling water system. The evolution removed 30 gallons of the 50 gallons total of jacket water. This was an unexpected condition because the technicians anticipated that they would be able to drain all of the jacket water. The partial draindown also required a more complex post-work test, since it required running the diesel to mix the chemicals and to obtain a representative water sample. However, the initial 30 gallon replacement was not sufficient to properly adjust the jacket water chemistry and an additional quantity of water had to be replaced. The jacket water chemistry was satisfactory after the second draindown and refill.

c. Conclusions

The replacement of the technical support center diesel generator jacket water was conducted in accordance with station procedures.

R4.3 Spent Resin Transfer

a. Inspection Scope (71750)

The inspector observed a portion of an evolution to remove primary spent resin from the spent resin storage tank to a high integrity shipping container for disposal.

b. Observations and Findings

On March 31, the inspector observed a pre-evolution briefing and a portion of a primary spent resin transfer. The inspector determined that the pre-job brief was performed consistent with Administrative Procedure AP-19.1, “Infrequently Performed Tests and Evolutions.” The inspector also observed that the procedures for the evolution were available at the job location and were used by plant workers during the evolution.

c. Conclusions

An NRC observed pre-job briefing and spent resin transfer were performed adequately and consistent with station expectations.

F2 Status of Fire Protection Facilities and Equipment

F2.1 Deficient Source Range Nuclear Instrument Fire Barrier

a. Inspection Scope (71750)

The inspector identified a deficient fire barrier while in the vapor containment, and evaluated the licensee’s corrective actions.

b. Observations and Findings

On March 3, the inspector observed a degraded fire barrier in the vapor containment. The fire barrier for protecting cabling associated with a source range nuclear instrument (NI-31) had a gap in it approximately 1 inch by 3 inches. The fire protection design engineer evaluated the gap and determined that it rendered the fire barrier inoperable. Consequently, the licensee entered Operational Specification 3.2.13, “Appendix R Fire Barriers, Fire Doors, Fire Dampers, Fire Wraps, Penetration Seals, and Radiant Energy Seals.” This specification required the operability of the fire detection system in the vicinity of the cabling to be verified within 1 hour, and the fire wrap to be repaired within 30 days. The licensee verified the operability of the fire detection system within 1 hour, and completed a review of surveillance tests 3PT-SA19 “Vapor Containment Smoke Detectors Test Panel (Analog)” and 3PT-R59 “Containment Smoke Detector Functional Test.” The licensee subsequently repaired the fire barrier and restored it to operability within two days.

c. Conclusions

NYPA's short-term corrective actions were adequate to correct an NRC identified deficiency in a degraded fire barrier for the 31 Source Range Nuclear Instrument. The fire barrier was quickly restored and returned to operability.

S3 Security Program Plans

a. Inspection Scope (81700)

The inspector reviewed the licensee's Security Program Plans

b. Observations and Findings

Security Program Plans. An in-office review was conducted of changes to the Indian Point 3 Security, Contingency, and Training and Qualification Plans, identified as Revisions 19, 5, and 8, respectively, submitted to the NRC in August and December 1999, in accordance with the provisions of 10 CFR 50.54(p), "Conditions of Licenses.". No NRC approval of these changes was required, in accordance with 50.54(p). These changes will be subject to future inspection to confirm that the changes, as implemented, have not decreased the overall effectiveness of the security plans.

c. Conclusion

Based on a limited review of the changes described in security plan revisions, no NRC approval of the changes was required in accordance with 10 CFR 50.54(p).

X1 Exit Meeting Summary

The inspectors met with the operations manager on February 18, 2000, to summarize the preliminary inspection findings in the area of the post-transient review group performance. The inspectors met with NYPA management on March 10, 2000, for the work control and operator requalification evaluations. The licensee acknowledged the preliminary findings and conclusions, with no exceptions taken.

The resident inspectors presented inspection findings and results to NYPA management on April 20, 2000. The licensee acknowledged the findings presented, and did not identify any materials examined during the inspection that were considered proprietary.

In addition to the items included in the current inspection period, the inspectors provided additional clarification on inspection report 05000286/1999010. Attachment 1 to that report listed NCVs 1999010-01 and 1999010-02 as open, but should have also listed them as closed.

ATTACHMENT 1

PARTIAL LIST OF PERSONS CONTACTED

E. Armondo	Operations Manager
R. Barrett	Site Executive Officer
R. Barroni	I&C Manager
F. Dacimo	Plant Manager
J. Comiotes	General Manager-Operations
J. DeRoy	Director, IP-3 Engineering
R. Deschamps	Health Physics Manager
P. Kokolakis	Acting Manager, IP3 Licensing
D. Mayer	General Manager-Support Services
J. Perrotta	Quality Assurance Manager
P. Rubin	Assistant Operations Manager
J. Russell	General Manager-Maintenance
M. Troy	Supervisor, Procurement Engineering
A. Vitali	Maintenance Manager
J. Wheeler	Training Manager

INSPECTION PROCEDURES USED

IP 37551:	On-site Engineering
IP 40500	Corrective Action Program
IP 61726:	Surveillance Observations
IP 62707:	Maintenance Observation
IP 71707:	Plant Operations
IP 71750:	Plant Support Activities
IP 92700:	Event Reports
IP 92901:	Followup - Operations
IP 92902:	Followup - Maintenance
IP 92903:	Followup - Engineering

ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

LER 2000-007	Mispositioned Valve that Could Prevent Use of Low to High Head Recirculation
LER 1998-005	Inoperable City Water Check Valves
LER 1998-004	Both Boric Acid Transfer Pumps Inoperable
LER 1999-007	Control Room Ventilation System Design Bases and Component Leakage Design Basis not Met Due to Safety Injection Valve Leakage

LIST OF ACRONYMS USED

ACT	Action Commitment Tracking
AFW	Auxiliary Feedwater System
AP	Administrative Procedure
CCR	Central control room
CCW	Component Cooling Water System
CFR	Code of Federal Regulations
CM	corrective maintenance
CO_2	carbon dioxide
COL	Check Off List
CRDM	control rod drive mechanism
CRS	Control Room Supervisor
CS	containment spray
CVCS	Chemical and Volume Control System
DER	deficiency/event report
ECCS	emergency core cooling system
EDG	emergency diesel generator
EOP	emergency operating procedure
ESF	engineered safety feature
ET	electric tunnel
FT	flow transmitter
I&C	instrumentation and controls
INPO	Institute of Nuclear Power Operations
IP3	Indian Point Nuclear Power Plant Unit 3
IR	Inspection Report
JPM	job performance measure
LCO	limiting condition for operations
LER	Licensee Event Report
LIC	level indicator-controller
LOCA	loss of coolant accident
LORT	Licensed Operator Requalification Training
MAT	modification acceptance test
MCC	motor control center
NCV	Non-cited Violation
NPO	Nuclear Plant Operator
NRC	Nuclear Regulatory Commission
NYPA	New York Power Authority
ONOP	off-normal operating procedure
PDR	Public Document Room
PID	Problem identification/discrepancy
PM	preventive maintenance
PORC	Plant Operations Review Committee
PORV	power-operated relief valve
psig	pounds per square inch - gage
PTO	Protective Tagging Order

PTRG	Post-Transient Review Group
QA	Quality Assurance
RCS	reactor coolant system
RHR	residual heat removal
RO	refueling outage
RP&C	Radiological Protection and Chemistry
RPS	reactor protection system
RWST	Refueling Water Storage Tank
SI	safety injection
SOP	Standard Operating Procedure
SRC	Safety Review Committee
STAR	stop, think, act, review
TI	temperature indicator
TS	technical specifications
URI	unresolved item
VAC	volts - alternating current
VDC	volts - direct current
WR	work request