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REGION I

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Report No. 99-03

Licensee: New York Power Authority

Facility: Indian Point 3 Nuclear Power Plant

Location: P.O. Box 215  
Buchanan, New York 10511

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## EXECUTIVE SUMMARY

### Indian Point 3 Nuclear Power Plant NRC Inspection Report No. 50-286/99003

This inspection included aspects of licensee operations, maintenance, engineering and plant support. The report covered a six-week period of resident and regional inspections.

#### Operations:

Information provided during turnover meetings was accurate and detailed. Control room communications were appropriate and consistent with operational directive expectations. The nuclear plant operators were knowledgeable of their watch responsibilities and used good self-checking techniques while operating plant equipment. (Report Detail O1.1)

The licensee's instrument and controls procedure for calibration of a weld channel and penetration pressurization system transmitter did not identify a potential entry into a technical specification limiting condition for operations. Although, the weld channel zone pressure remained above the technical specification limit, the system was isolated in a manner that was inconsistent with the technical specification bases. Neither the Instrumentation & Control calibration procedure nor the work package planners identified the impact of the work on technical specifications. (Report Detail O2.2)

Corrective actions to address an inadequate protective tagout for an atmospheric steam relief valve were narrowly focused and did not identify the root cause of the event. Specifically, the licensee failed to identify and correct an inadequate piping diagram and poor human performance which had the potential to challenge personnel and plant safety. The failure to identify the root cause of this event is a violation of 10 CFR 50 Appendix B, section 16, "Corrective Actions." This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. This issue is in the licensee's corrective process as deviation event report 99-00839. (NCV 99003-01) (Report Detail O2.3)

#### Maintenance:

Maintenance activities observed were conducted satisfactorily and in accordance with applicable maintenance and administrative procedures. The licensee appropriately monitored performance of equipment within the scope of the maintenance rule. (Report Detail M1.1)

Surveillances were conducted appropriately and in accordance with procedural and administrative requirements. Good coordination and communication with the control room was observed during performance of the surveillance. The test instrumentation was properly calibrated and the acceptance criteria were achieved. (Report Detail M1.4)

Preventive maintenance on the 33 emergency diesel generator (EDG) was adequate and maintenance procedures were of good quality. Some minor discrepancies with work control implementation were observed as evidenced by unclear guidance for venting of components,

## Executive Summary (cont'd)

leakage from a lube oil cooler flange and incorrect gasket material which extended the unavailability of the emergency diesel generator. (Report Detail M2.1)

Overall, some improvements have occurred in station work control during the past six months; however, significant challenges remain in the area of material availability. Also, some problem identification tags on risk significant systems were not being corrected in a timely manner. The schedule adherence meeting observed was not effective in determining the causes and possible corrective actions for schedule non-adherence. Work control performance indicators focused mainly on work performance rather than work planning performance. (Report Detail M8.1)

### Plant Support:

The licensee maintained effective radioactive liquid and gaseous effluent control programs. The Offsite Dose Calculation Manual (ODCM) contained sufficient specification and instruction to acceptably implement and maintain the radioactive liquid and gaseous effluent control programs. The licensee established an effective program to comply with Inspection & Enforcement Bulletin (IE) 80-10 and 10 CFR 50.57(g) requirements. (Report Detail R1.1)

The licensee maintained an effective program for effluent RMS calibration. The System Engineer effectively monitored the system for operability and reliability problems and assured adequate maintenance of the system and supporting components. The licensee had no Y2K issues with respect to the effluent RMS. (Report Detail R2.1)

The licensee established, implemented, and maintained an effective ventilation system surveillance program with respect to charcoal adsorption surveillance tests, high efficiency particulate (HEPA) and charcoal filter mechanical efficiency tests, and air flow rate tests. (Report Detail R2.2)

The licensee's QA program for effluent control was effectively implemented. The licensee's QC program to validate analytical results for the radioactive liquid and gaseous effluent control program was effective. (Report Detail R7)

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## 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

Indian Point Unit 3 began this inspection period at full power. On May 17, 1999, a heater drain pump tripped and power was reduced to 60 percent to troubleshoot the cause of the trip. A degraded feedwater heater level controller was identified as the primary cause of the trip and subsequently replaced. On May 18, 1999, the unit was returned to full power and remained there for the duration of the inspection period.

### I. OPERATIONS

#### O1 Conduct of Operations

##### O1.1 General Observations

###### a. Inspection Scope (71707)

The inspection consisted of observations of shift turnover meetings, control room communications, verification of equipment protective tagouts, verification of safety related equipment status through routine tours within the facility.

###### b. Observations and Findings

The inspector observed accurate and detailed shift turnover meetings. Control room communication were appropriate and consistent with operational directive expectations.

The inspector accompanied a nuclear plant operator (NPO) on rounds in the primary auxiliary building. The inspector noted that the NPO was cognizant of his watch responsibilities and exhibited good self checking techniques when operating plant equipment. The inspector also performed independent walk downs of the nuclear plant operator logs for the conventional and nuclear portions of the facility. All log readings were either within their acceptance criteria or dispositioned appropriately.

The inspector independently walked down two protective tagouts (PTOs), PTO 99-0553, "weld channel, zone 1, nitrogen backup isolation" and PTO 99-0666, "control room air conditioning preventive maintenance and compressor replacement." Both PTOs provided adequate protection for personnel to perform the required maintenance which was in contrast to an inadequate PTO for an atmospheric steam relief valve that had the potential to cause severe personnel injury (Report Detail O2.3).

###### c. Conclusions

Information provided during turnover meetings was accurate and detailed. Control room communications were appropriate and consistent with operational directive expectations. The nuclear plant operators were knowledgeable of their watch responsibilities and used good self-checking techniques while operating plant equipment.

## O2 Operational Status of Facilities and Equipment

### O2.1 Engineered Safety Feature (ESF) System Walkdowns

The inspectors used Inspection Procedure 71707 to walk down accessible portions of the following ESF systems:

- Containment Spray System
- 31 Auxiliary Boiler Feedwater System

Equipment operability, material condition, and housekeeping were acceptable. The problem identification tags associated with the above equipment were appropriately dispositioned and prioritized to be worked within the licensee's work control process.

### O2.2 Weld Channel Limiting Condition for Operation (LCO)

#### a. Inspection Scope (71707)

The inspector reviewed the circumstances regarding an instance where the licensee did not identify a condition which required the tracking of a technical specification limiting condition for operation.

#### b. Observations and Findings

On June 3, while performing a flow transmitter calibration per instrument and controls (I&C) procedure IC-PC-I-F-1126-4, "Penetration and Liner Weld Joint Pressurization Zone 4 Flow," the licensee isolated the air receiver from a portion of the weld channel system. This resulted in a condition that could have challenged the technical specification (TS) limiting condition for operation (LCO) and should have been tracked as an LCO by the operations personnel per the licensee's administrative procedure, AP 21.9, "Implementing Limiting Conditions for Operations."

Specifically, the I&C procedure has steps which isolates two instrument valves in order to calibrate the flow transmitter. However, these instrument isolation valves are in direct line with the air receiver system and, therefore, isolated the zone 4 penetrations from their respective air receiver. With the weld channel zone isolated there is no way to make up air pressure to the penetration if it falls below the required 43 psig. The technical specification (TS) bases states that a weld channel and penetration pressurization zone is considered the portion of piping downstream of the air receiver discharge valve up to the last component pressurized by the system portion. Although the pressure in the zone did not drop below the technical specification limit of 43 psig, the licensee did not identify that the zone was isolated from the air receiver for a period of time during the calibration. The licensee concluded that the system remained operable for the duration of the calibration because it remained pressurized above 43 psig and did not elevate the air consumption of the weld channel and containment penetration pressurization system ( WCPPS) above the maximum limit of 0.2% of the containment volume.

The inspector concluded that the I&C procedure did not adequately address the potential limiting condition for operation entry necessary for performing this calibration. In addition, the licensee's work control process did not identify this condition prior to releasing this activity to be performed per the routine control room activity process. This issue did not impact the safety function of the system, which is to keep the containment penetrations pressurized above the calculated peak accident pressure of 42.42 psig; however it did challenge the operators as they were not prompted to track a TS LCO per the normal work control methods. This procedural inadequacy constitutes a violation of minor significance due to the fact that the system remained operable per the technical specification definition and is not subject to formal enforcement action. This licensee identified issue was entered into the licensee's corrective action program as deviation event report no. 99-1104.

c. Conclusions

The licensee's instrument and controls procedure for calibration of a weld channel and penetration pressurization system transmitter did not identify a potential entry into a technical specification limiting condition for operations. Although, the weld channel zone pressure remained above the technical specification limit, the system was isolated in a manner that was inconsistent with the technical specification bases. Neither the Instrumentation & Control calibration procedure nor the work package planners identified the impact of the work on technical specifications.

O2.3 Inadequate Protective Tagout for Atmospheric Relief Valve 34

a. Inspection Scope (71707)

The inspector reviewed the licensee's corrective actions in response to an inadequate protective tag out that could have led to an adverse condition to quality and a severe personnel injury.

b. Observations and Findings

On April 28, the licensee removed the 34 atmospheric relief valve actuator to troubleshoot a degraded condition in the valve. A protective tag out (PTO) was applied, which provided single valve isolation to the relief valve. During the maintenance activity, a system engineer identified a common drain line between the 33 and 34 atmospheric relief valves. This common drain line compromised the integrity of the protective tag out because it provided a path for steam to directly impact personnel if the 33 atmospheric valve lifted. The inspector noted that the drawing used to develop this PTO did not specify where the drain line terminated; the print indicated a drain with a single arrow and no reference documentation. The inspector concluded that this was an inadequate drawing to prepare a PTO. In addition, the performance of the PTO preparer was poor because he failed to physically verify the termination after identifying that the print did not provide sufficient information.

The system engineer wrote a deviation event report (DER) for this issue and the inspector observed the licensee's initial screening for significance level and investigative analysis assignment for the DER. Although this condition could be considered one adverse to quality and with the potential to cause serious injury to plant personnel the DER was assigned a significance level "C", with a level 3 analysis category. The licensee's corrective action administrative procedure, AP 8.5, "Screening and Assignment of DERs," indicates that this issue warrants a higher significance and investigative analysis assignment. Specifically, the procedure discusses assignment of significance level "B" DERs to issues that had the potential to cause serious personnel injury. In addition, per the licensee's administrative procedure (AP), the casual analysis should have been assigned a category 2, "investigative critique," as opposed to the DER report that was performed. Specifically, AP 8.5, attachment 3, provides examples of events that are classified as category 2, this list includes "Near misses that have the potential to affect reactor or personal safety." The inspector concluded that the licensee did not screen and review this DER in accordance with their administrative procedure.

The licensee's corrective actions for this event were to document the existence of the common drain lines as an operational concern, and reference that concern in a protective tag out software database. These actions may preclude recurrence of this particular event; however, the licensee failed to identify the inadequate drawing that was used to develop the PTO. In addition, poor human performance as evidenced by a failure to physically verify the routing of the drain line which was not clearly specified on the drawing was not identified in the DER response report. The inspector concluded that this event was a significant condition adverse to quality because it challenged personnel safety and had the potential to challenge plant safety. The failure to identify the root cause of this event is a violation of 10 CFR 50 Appendix B, section 16, "Corrective Actions." This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. This issue is in the licensee's corrective process as deviation event report 99-00839. (NCV 99003-01)

c. Conclusions

Corrective actions to address an inadequate protective tagout for an atmospheric steam relief valve were narrowly focused and did not identify the root cause of the event. Specifically, the licensee failed to identify and correct an inadequate piping diagram and poor human performance which had the potential to challenge personnel and plant safety. The failure to identify the root cause of this event is a violation of 10 CFR 50 Appendix B, section 16, "Corrective Actions." This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. This issue is in the licensee's corrective process as deviation event report 99-00839. (NCV 99003-01)

## II. MAINTENANCE

### M1 Conduct of Maintenance

#### M1.1 Maintenance General Comments

##### a. Inspection Scope (62707)

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

##### b. Observations and Findings

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

- WR 98-01603-00, "Safety Injection valve 851A, motor operated valve preventive maintenance activity;"
- WR 98-03170-00, "preventive maintenance inspection and cleaning on 33 emergency diesel generator jacket water and lube oil heat exchangers;"
- WR 98-02975-00, "preventive maintenance inspection and rotating element change out on 31 boric acid transfer pump;" and,
- WR 99-0234-00, "preventive maintenance inspection of 32 control room air conditioning unit/ compressor replacement."

##### c. Conclusions

Maintenance activities observed were conducted satisfactorily and in accordance with applicable maintenance and administrative procedures. The licensee was appropriately monitoring performance for equipment within the scope of the maintenance rule.

#### M1.4 Surveillance General Comments (61726)

##### a. Inspection Scope (61726)

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

##### b. Observations and Findings

The inspectors observed all or portions of the following surveillances:

- 3PT-Q120A, "31 Motor Driven Auxiliary Boiler Feed Pump Test,"
- 3PT-M79C, "33 Emergency Diesel Generator Functional Test,"
- 3PT-W1, "Emergency Diesel Generator Support System Inspection,"

c. Conclusions

Surveillances were conducted appropriately and in accordance with procedural and administrative requirements. As applicable, good coordination and communication with the control room was observed during performance of the surveillance. The test instrumentation was within calibration, and the acceptance criteria were achieved.

**M2 Maintenance and Material Condition of Facilities and Equipment**

**M2.1 33 Emergency Diesel Generator Preventive Maintenance**

a. Inspection Scope (61726 & 62707)

The inspectors observed portions of the routine, scheduled preventive maintenance on the 33 emergency diesel generator (EDG) including final closure of the lube oil cooler and removal of the plant tag-out for system restoration. The inspectors reviewed the applicable work procedures and the protective tag out removal instructions and discussed the maintenance activities with the maintenance technicians and supervisors and the system engineer.

b. Observations and Findings

During the week of May 17, 1999, scheduled preventive maintenance on the 33 EDG mainly involved lube oil and jacket water heat exchanger maintenance. Incorrect gaskets for these maintenance activities resulted in several hours delay returning the diesel to service. In addition, leakage from a lube oil cooler flange during return to service resulted in at least an additional 12 hours delay in returning the 33 EDG to service.

The inspectors observed the mechanics performing the flange alignment, tightening the lube oil cooler flanges and the removal of the protective tagout. Maintenance supervision was routinely present during performance of this work and provide good oversight of the mechanics. Fire watches were properly established when required. Preventive maintenance procedures being used were of good quality to achieve required maintenance results. No deficiencies were identified during review of the material sheets for this work. Generally, the procedures were performed as required. However, the inspectors identified early during the removal of the protective tag-out that a nut on a stud to the 20 hole end bell flange was finger tight instead of fully torqued. This flange connection had been opened during maintenance and both the mechanic performing the work and a second mechanic that verified the work initialed that this flange had been tightened satisfactorily in the work procedure. Mechanical supervision believed that this nut was missed during the tightening process because a star pattern was used and no final verification was made by going from stud to stud.

The inspectors observed two examples of questionable work practices. First, there were no instructions in any of the work documents on how to vent the lube oil cooler

during the return to service. Operations personnel vented the cooler when they were taking a required oil sample instead of after the lube oil pump was started. Second, a local service water differential pressure indicator for the lube oil and jacket water coolers was not filled and vented following maintenance. The inspectors questioned operations personnel about this condition and a generic fill and vent procedure was written and performed for this indicator. No Deviation Event Report (DER) was written for either of these venting discrepancies.

c. Conclusions

Preventive maintenance on the 33 emergency diesel generator (EDG) was adequate and maintenance procedures were of good quality. Some minor discrepancies with work control implementation were observed as evidenced by unclear guidance for venting of components, leakage from a lube oil cooler flange and incorrect gasket material which extended the unavailability of the emergency diesel generator.

**M8 Miscellaneous Maintenance**

**M8.1 Station Work Control**

a. Inspection Scope (62707)

The inspectors observed several work control meetings and discussed the work control processes with engineering, maintenance, and work control personnel. Station performance indicators applicable to work control were reviewed. The inspectors also examined portions of three of the top ten most risk significant systems per the Individual Plant Examination (IPE), to determine the numbers and age of problem identification (PID) tags that existed on these systems.

b. Observations and Findings

In April 1999, a Deviation Event Report (DER) was written by the work control department documenting examples of issues that resulted in poor schedule adherence for several jobs. This inspection focused on the processes used by the station to accomplish work control and how these processes were implemented.

The inspectors attended the daily work planning meeting, 12 week schedule meeting, and the T-4 (i.e. four weeks prior to work being performed) week meeting. Work control was discussed with the work control manager, the operations work control supervisor, a work week manager, the unit coordinator, maintenance managers, a system engineer and several maintenance supervisors and mechanics. Based on these discussions, the inspectors noted that some improvements have occurred in station work control during the past six months. Work control and planning work stations have been more centrally located at the station. Personnel were being held accountable for adherence to the work schedules during the work weeks. The station performance indicators have shown improvements in on-time work starts and finishes since the beginning of the year.

Although improvements in work control have occurred since the beginning of the year, most people interviewed stated that material availability was a significant challenge for the timely performance of work. For example, during the 33 emergency diesel generator (EDG) outage, the wrong gaskets were provided for the work being performed. The correct gaskets were not available on-site even though this preventive maintenance has been performed routinely on all three site EDGs. Gaskets were fabricated out of in-stock gasket sheets. The delays in getting the correct gaskets resulted in several hours delay in having the EDG out-of-service during the 72 hour technical specification limiting condition for operation time. Also, a problem with leaking fuel oil racks that was identified in September 1998, was not corrected during this outage due to the availability of gaskets required for the repair.

The inspectors attended a post-work week schedule adherence meeting. Causes and initial corrective actions for problems that resulted in non-adherence to the schedule were generally not determined by the responsible individuals prior to this meeting. Several personnel stated later that the meeting was not being constructively used to improve schedule performance. The inspectors determined that this schedule adherence meeting was not effective in determining the causes and possible corrective actions for schedule non-adherence.

The inspectors also attended a weekly station performance indicator meeting. Although corrective maintenance backlog numbers, schedule adherence indicators and work delays were available, no indicators existed for schedule planning challenges. These challenges included material availability, engineering support, and manpower availability during a given work week in comparison with manpower estimates submitted for the 12 week schedule.

On-line risk management of work activities performed during a specific work week was discussed with work control personnel. Currently, the risk profile was generated manually at the station and verified using computers by off-site engineering personnel. In the future, the station planned to obtain a site on-line risk computer program to use for scheduled and emergent work activities. Risk profiles for work performed during the week were available in the control room and the operators had some knowledge of the overall station risk due to maintenance.

During a review of the problem identification system, the inspectors noted that some items in the database were not coded as corrective maintenance. The inspectors determined that some PID tags on risk significant systems were not being corrected in a timely manner based on the age and numbers of problem identification tags found on these systems. However, these tags were coded as enhancements rather than corrective maintenance. The inspectors walked down both the turbine driven and two motor driven auxiliary feedwater systems, the auxiliary feedwater building ventilation system, and the 33 EDG system. Several maintenance-related problem identification tags were observed on these systems, many were two to three years old. In addition, a problem identified in 1996 regarding the outside seals on two auxiliary feedwater building ventilation fans was not scheduled to be worked during a system outage planned for the week of May 24, 1999. Station personnel were generally unaware of this problem and

did not know why it would not be corrected during this system outage. This problem was not coded as corrective maintenance in the problem identification system. The station normally only tracked problems identified as corrective maintenance in their weekly performance indicators.

c. Conclusions

Overall, some improvements have occurred in station work control during the past six months; however, significant challenges remain in the area of material availability. Also, some problem identification tags on risk significant systems were not being corrected in a timely manner because of incorrect coding. The schedule adherence meeting observed was not effective in determining the causes and possible corrective actions for schedule non-adherence. Work control performance indicators focused mainly on work performance rather than work planning performance.

### III. ENGINEERING

#### E8 Miscellaneous Engineering Issues

- E8.1 (Closed) Licensee Event Report 50-286/99005: Incomplete testing of emergency power supply tie-breaker interlocks. On May 18, 1999, the licensee determined that a technical specification surveillance requirement for emergency power system testing was not met. While reviewing the emergency power supply breaker configuration for planning preventive maintenance, the licensee identified a condition where the emergency power supply breakers were in an untested condition due to a failure to properly test their associated tie-breaker interlocks. Specifically, two parallel contacts which provided permissive signals to the emergency diesel supply breakers were not tested independently. The inspector noted excellent performance on the part of the licensee's independent safety engineering group (ISEG) that identified this issue. This licensee identified and corrected violation of technical specification 4.6.A is being treated as a Non-Cited Violation, consistent with section VII.B.1 of the NRC Enforcement Policy. This item is closed. (NCV 50-286/99003-02)
- E8.2 (Closed) Licensee Event Report 50-286/99006: Plant outside design basis due to routing of component cooling water (CCW) piping inside missile shield wall in containment during original plant design. The original plant design routed this CCW piping inside the shield wall; however, the final safety analysis report (FSAR) states that, "the CCW system was a dual header design, in consideration of accommodating a single active or passive failure." This condition was evaluated by the licensee in an safety evaluation report on May 26, 1989, which concluded that the CCW system was a closed system inside containment. Additionally, by letter dated March 10, 1986, the NRC staff approved an evaluation that demonstrated a loss of coolant accident (LOCA) in the large piping of the reactor coolant system will leak before breaking and approved elimination of the dynamic effects from consideration as part of the plant design basis. Corrective actions for this condition include a written basis for continued plant operation based on the March 10, 1986, NRC safety evaluation and conclusion that "the probability of large pipe breaks is so low that dynamic effects of large piping breaks need not be considered

in the design basis for this system." In addition, the licensee plans to write a nuclear safety evaluation to update the FSAR to revise the design basis for CCW piping routed inside the shield wall. An extent of condition review is being addressed by the licensee's 10 CFR 50.54(f) review program. The inspector performed an in office review of this issue and the associated corrective actions. This LER is closed.

#### IV. PLANT SUPPORT

##### R1 Radiological Protection and Chemistry (RP&C) Controls

##### R1.1 Implementation of the Radioactive Liquid and Gaseous Effluent Control Programs

###### a. Inspection Scope (84750-01)

Inspection of this area consisted of:

- (1) review of radioactive liquid and gaseous effluent release permits;
- (2) review of effluent control procedures;
- (3) review of the 1998 Semiannual Effluent Reports;
- (4) review of the Offsite Dose Calculation Manual (ODCM); and
- (5) review of overall effluent program implementation.

The inspection also included tours of the control room and other selected areas, reviewed selected radioactive gas processing facilities and equipment, reviewed the effluent and process radiation monitoring system (RMS), verified the primary auxiliary building plant air balance, and reviewed the air cleaning systems.

###### b. Observations and Findings

All effluent radiation monitors and air cleaning systems were operable at the time of the plant tour. The primary auxiliary building was maintained at a negative pressure, as required.

Reviewed procedures were detailed and easy to follow, and ODCM requirements were incorporated into the appropriate procedures. Reviewed radioactive liquid and gaseous effluent release permits were complete. The licensee reviewed and resolved the potential Y2K issue for the computer software used to demonstrate compliance with projected dose calculations to the public from effluent releases.

The 1998 Semiannual Radioactive Effluent Reports provided data indicating total released radioactivity for liquid and gaseous effluents. The assessment of the projected maximum individual doses resulting from radioactive airborne and liquid effluents were included, as required. Projected doses to the public were well below the Technical Specification (TS) limits. There were no anomalous measurements, omissions or adverse trends in these reports.

The ODCM provided descriptions of the sampling and analysis programs, which were established for quantifying radioactive liquid and gaseous effluent activities, and for calculating projected doses to the public. All necessary parameters, such as effluent radiation monitor setpoint calculation methodologies, and site-specific dilution factors, were listed.

The licensee established an adequate program to comply with Inspection and Enforcement (IE) Bulletin 80-10 and 10 CFR 50.75(g) requirements to avoid an unmonitored release to the environment and to identify potential contaminated locations relative to eventual decommissioning.

c. Conclusions

The licensee maintained effective radioactive liquid and gaseous effluent control programs. The ODCM contained sufficient specification and instruction to acceptably implement and maintain the radioactive liquid and gaseous effluent control programs. The licensee established an effective program to comply with Inspection and Enforcement (IE) Bulletin 80-10 and 10 CFR 50.57(g) requirements.

**R2 Status of RP&C Facilities and Equipment**

**R2.1 Calibration of Effluent/Process Radiation Monitoring Systems (RMS) and Hydrogen/Oxygen Monitors**

a. Inspection Scope (84750-01)

The inspector reviewed the most recent calibration results for the following selected effluent/process RMS and hydrogen/oxygen monitors to determine implementation of the TS requirements:

- Liquid Radwaste Effluent Radiation Monitor (R-18);
- Steam Generator Blowdown Effluent Line Radiation Monitor (R-19);
- Service Water System Effluent Line Monitors (R-16A/B, R-23);
- Condensate Polisher Effluent Line Radiation Monitor (R-61);
- Waste Gas Holdup System Noble Gas Monitor (R-20);
- Condenser Air Ejector Noble Gas Monitor (R-15);
- Containment Purge System Noble Gas Monitor (R-12);
- Plant Vent Wide Range Noble Gas Monitors (R-27, R-14); Hydrogen Monitor; and Oxygen Monitor.

b. Observations and Findings

All calibration results, including oxygen and hydrogen monitor calibration results, were within the licensee's acceptance criteria. The System Engineer responsible for the oversight of the RMS demonstrated adequate knowledge of the RMS relative to operability requirements and performance history. Several RMS will be upgraded during

the upcoming outage. The licensee's radioactive liquid and gaseous effluent RMS assessment did not identify any significant concerns with respect to Y2K issues.

c. Conclusion

The licensee maintained an effective program for effluent RMS calibration. The System Engineer effectively monitored the system for operability and reliability problems and assured adequate maintenance of the system and supporting components. The licensee had no Y2K issues with respect to the effluent RMS.

R2.2 Air Cleaning Systems

a. Inspection Scope (84750-01)

The inspector reviewed the licensee's most recent surveillance test results (Visual Inspection, In-Place HEPA Leak Tests, In-Place Charcoal Leak Tests, Air Capacity Tests, Pressure Drop Tests, and Laboratory Tests for the Iodine Collection Efficiencies) to determine the implementation of TS requirements for the following systems:

- (1) Containment Air Filtration System
- (2) Control Room Air Filtration System
- (3) Fuel Storage Building Emergency Ventilation System; and
- (4) Containment Vent and Purge System

b. Observations and Findings

All surveillance results were within the TS acceptance criteria. The responsible individual had appropriate knowledge of the testing methodologies and acceptance criteria.

c. Conclusions

The licensee established, implemented, and maintained an effective ventilation system surveillance program with respect to charcoal adsorption surveillance tests, HEPA and charcoal filter mechanical efficiency tests, and air flow rate tests.

R7 **Quality Assurance (QA) in RP&C Activities**

a. Inspection Scope (84570-01)

The inspector reviewed a quality assurance (QA) audit, self assessments, inter-laboratory measurement comparisons, and chemistry laboratory quality control (QC) program for radioactive liquid and gaseous effluent samples.

b. Observations and Findings

The licensee audit teams identified a number of positive and negative observations. None of the negative observations were assessed to have regulatory significance. Scope and depth of the QA audits were appropriate. There were individuals with pertinent experience on the audit teams.

The Chemistry's self-assessments for effluent controls and QA/QC were appropriate to identify weaknesses and strengths. The licensee used the self-assessment results as a tool for improving the effluent control program.

No discrepancies were evident from QC data for intra/interlaboratory comparisons. The QC program consisted of measurements of blind duplicate, spike, and split samples through a vendor-supplied service. The licensee also conducted challenging routine QC checks through the National Institute of Standards and Technology. When discrepancies were found, effective resolutions were determined and implemented.

c. Conclusions

The licensee's QA program for effluent control was effectively implemented. The licensee's QC program to validate analytical results for the radioactive liquid and gaseous effluent control program was effective.

## V. MANAGEMENT MEETINGS

**X1 Exit Meeting Summary**

Region-based inspectors presented inspection findings in the area of to members of the licensee's management on May 21, 1999. The licensee acknowledged the findings presented. The resident inspectors presented the integrated inspection results to members of the licensee's management at the conclusion of the inspection on June 30, 1999. The licensee acknowledged the findings presented.

The inspectors' asked NYPA whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

**X2 Y2K Readiness Review**

The staff conducted an abbreviated review of Y2K activities and documentation using Temporary Instruction (TI) 2515/141, "Review of Year 2000 (Y2K) Readiness of Computer Systems at Nuclear Power Plants." The review addressed aspects of Y2K management planning, documentation, implementation planning, initial assessment, detailed assessment, remediation activities, Y2K testing and validation, notification activities, and contingency planning. The reviewers used NEI/NUSMG 97-07, "Nuclear Utility Year 2000 Readiness," and NEI/NUSMG 98-07, "Nuclear Utility Year 2000 Readiness Contingency Planning," as the basis for this review.

The results of this review will be combined with the results of other reviews in a summary report to be issued by July 31, 1999.

## ATTACHMENT 1

### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

R. Barrett, Site Executive Officer  
F. Dacimo, Plant Manager  
J. Comiotes, General Manager-Operations  
D. Quinn, General Manager, Support Services  
J. Russell, General Manager-Maintenance  
J. DeRoy, Director, IP3 Engineering  
K. Peters, Manager, Licensing

### INSPECTION PROCEDURES USED

IP 37551: On-site Engineering  
IP 61726: Surveillance Observations  
IP 62707: Maintenance Observation  
IP 71707: Plant Operations  
IP 71750: Plant Support Activities  
IP 92700: Event Reports  
IP 92903: Followup - Engineering  
IP 84750-01 Radioactive Waste Treatment, and Effluent and Environmental Monitoring

### ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened

NCV 99003-01: Inadequate corrective actions for protective tagout  
NCV 99003-02: Inadequate emergency power technical specification surveillance test

#### Closed

NCV 99003-01: Inadequate corrective actions for protective tagout  
NCV 99003-02: Inadequate emergency power technical specification surveillance test  
LER 99005-00: Inadequate emergency power technical specification surveillance test  
LER 99006-00: Plant outside design basis due to component cooling water piping inside shield wall.

**LIST OF ACRONYMS USED**

CCW	component cooling water
CFR	Code of Federal Regulations
DER	deviation event report
EDG	emergency diesel generator
ESF	engineered safety feature
HEPA	high efficiency particulate
I&C	Instrument and Controls
IPE	individual plant examination
LCO	limiting condition for operations
LER	licensee event report
LOCA	loss of coolant accident
NCV	non-cited violation
NPO	nuclear plant operator
ODCM	Offsite Dose Calculation Manual
PID	Problem Identification
PTO	protective tagout
QA	Quality Assurance
QC	Quality Control
RMS	radiation monitoring system
RP&C	Radiological Protection and Chemistry
SEG	safety engineering group
TI	temporary instruction
TS	technical specification
UFSAR	Updated Final Safety Analysis Report
WCPPS	weld channel and containment penetration pressurization system
Y2K	Year 2000