U.S. NUCLEAR REGULATORY COMMISSION

REGION I

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Report No.	50-286/99-05
Licensee:	New York Power Authority
Facility:	Indian Point 3 Nuclear Power Plant
Location:	P.O. Box 215 Buchanan, New York 10511
Dates:	June 17 - August 1, 1999
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EXECUTIVE SUMMARY

Indian Point 3 Nuclear Power Plant
NRC Inspection Report No. 50-286/99-05

This inspection included aspects of licensee operations, maintenance, engineering and plant support. The report covered a seven-week period of resident inspections and included an inspection by a region-based specialist in radiation protection.

Operations

Operator performance during routine operations was adequate and in accordance with licensee management expectations. Good command and control practices were observed. (Report Detail O1.1)

Operations identification and awareness of degraded service water flow instruments was poor. The failure to initiate a problem identification tag for a degraded instruments demonstrated a lapse in operator performance in identifying problems. Also, the operators did not physically post the PID tags near the degraded instruments which led to an inconsistent awareness by operators regarding the status of those flow indicators. Specifically, some operators were not aware that the indicators were in a degraded condition and may not be relied on during accident conditions. (Report Detail O2.1)

Operations personnel performance while removing a heater drain pump from service was ineffective. Poor attention to detail caused an inadvertent trip of the 32 heater drain pump (HDP) while attempting to remove the 31 heater drain pump from service. In addition, the licensee did not initiate a deviation event report on this issue, and therefore did not identify a potential human performance error regarding the inadvertent HDP trip. Also, weaknesses in interdepartmental communications, engineering support and work control coordination led to a condition that could have created a potentially significant secondary plant transient. Specifically, precautions were not communicated to the operators regarding a degraded HDP check valve prior to removing its respective pump from service. (Report Detail O2.2)

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 observed surveillances. Test instrumentation was within calibration, and the test acceptance criteria were achieved. (Report Detail M1.2)

Engineering

The licensee's development and implementation of a test connection modification to the isolation valve seal water system was poor in that it did not address significant issues associated with plant and personnel safety. Specifically, the modification did not identify the potential for a containment release path after a portion of the modification was installed. The failure to properly test the function of the tubing modification prior to placing it in the containment isolation boundary is a violation of 10 CFR Part 50, Appendix B, Section XI, "Test Control." However, this Severity Level IV Violation is being treated as a Non-Cited Violation because the issues were licensee identified and the corrective actions taken were adequate, consistent with Appendix C of the NRC Enforcement Policy. **(NCV 99005-01)** (Report Detail E1.1)

The operability determination for an anomalous reading for a residual heat removal system flow transmitter was flawed and reflected weak engineering support to operations. As a result, corrective action to address this deficiency, such as venting the transmitter, was not performed and no additional actions planned until the issue was raised by the NRC. The failure to promptly correct a condition adverse to quality is a violation of 10 CFR Part 50, Appendix B, Section XVI, "Corrective Actions." This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. **(NCV 99005-02)** (Report Detail E1.2)

Plant Support

Overall, the conduct of the emergency preparedness drill was good and the self assessment was thorough in identifying discrepancies and providing for program enhancements. The licensee's partial participation emergency exercise drill was developed and implemented in accordance with NYPA's emergency response procedures and the NRC guidelines for emergency preparedness. (Report Detail P1.1)

The solid radioactive waste management program continued to be effective based on proper implementation of the program by knowledgeable personnel, the existence of appropriate procedures and controls, and the acceptable condition of facilities and equipment. The Process Control Program documentation provided a complete and detailed description of the waste types generated, waste stream sampling and analyses performed, and waste processing methods used. (Report Detail R1.1)

The program to transport low level radioactive waste and other radioactive materials was effective. Overall, shipping manifests and supporting documentation were properly prepared, radiation and contamination limits were met, waste was properly classified, and shipments were properly typed as to their DOT class. (Report Detail R1.2)

The NRC and DOT training and retraining requirements for radioactive waste group personnel were met. The training program for personnel involved with solid radioactive waste activities and with the transportation of radioactive materials remained well organized, fully implemented, and well documented. (Report Detail R5)

Surveillances, self-assessments, and other methods used for problem identification and resolution were being performed in an effective manner. Surveillance reports identified items for corrective action. The two most recent self-assessments were detailed and identified numerous recommendations for improvement. Problems were being identified and put into the corrective action program, and appropriate and timely corrective actions were being instituted. (Report Detail R7)

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ATTACHMENTS

Report Details

SUMMARY OF PLANT STATUS

Indian Point Unit 3 began this inspection period at full power. On July 17, 1999, the licensee reduced power to approximately sixty percent in order to remove a heater drain pump for emergent maintenance on a leaking mechanical seal. The pump mechanical seal was replaced successfully and a load escalation commenced. The load escalation was secured shortly after when it was discovered that the mechanical seal was still leaking. The pump was repaired and the unit was returned to full power on July 18, 1999, 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 and 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 communications were appropriate and consistent with operational directive expectations.

The inspector performed independent visual inspections of the primary auxiliary building and the control building. Using the operator logs, the inspector verified that all indications were within the log specification and consistent with the previous readings recorded by the nuclear plant operators. In addition, the inspector periodically verified the indications and equipment lineups in the control room. All indications were reading within specification or appropriately dispositioned per the licensee's corrective action program with the exception of three service water flow indicators to the containment fan cooler units (See Report Detail O2.1) and a residual heat removal wide range flow indicator (See Report Detail E2.1).

c. Conclusions

Operator performance during routine operations was adequate and in accordance with licensee management expectations. Good command and control practices were observed.

O2 Operational Status of Facilities and Equipment

O2.1 Fan Cooler Unit Service Water Flow Indication

a. Inspection Scope (37551, 71707)

During a walkdown of control room panels, the inspector noted that the service water flow indicators (FIs) 1121 through 1125 for the fan cooler units (FCUs) 31 through 35, respectively, were indicating differently. Specifically, FI-1121 was fluctuating erratically between 0 and 950 gpm; FI-1122 was reading steady at 1400 gpm; FI-1123 and FI-1124 were fluctuating erratically between 1000 and 1450 gpm; and, FI-1125 was identified by the licensee as out-of-service by a problem identification description (PID) tag. The inspector reviewed the implications of the erratic indications on the functionality of these flow instruments and on the operation of the plant.

b. Observations and Findings

Based upon discussions with the control room operators, service water flow through the FCUs was increased to control containment temperatures in response to warmer weather conditions. Previously, service water flow through the FCUs was throttled and the variation in flow indications was not apparent.

In discussions with the licensee, the inspector determined that there were PID tags associated with FIs 1121 and 1123; however, they were hung only on the transmitter, and not on the indicators in the control room. The lack of PID tags in the control room contributed to the operators being unaware that the instruments were degraded. Interviews by NRC inspectors with several control room operators revealed that the operators believed the indicators were functioning normally. Further, some operators erroneously believed that the flow indication would steady out during accident conditions because flows would be much higher. However, the inspector noted that the flows during accident conditions would only be about 1600 gpm, and not considerably higher than flows being observed.

In response to the NRC observations, the licensee posted PID tags next to FIs 1121 and 1123, and initiated deviation event report (DER) 99-1341. The inspectors noted that FI 1124 was still fluctuating erratically, and was not identified as degraded by the licensee, even though its indication was similar to FI 1123. When this observation was pointed out by the inspector, the licensee initiated a PID on the FI 1124 indicator.

FCU flow is a Regulatory Guide 1.97, Type D variable. Type D variables provide information to indicate the operation of safety systems, and to help operators make appropriate decisions using individual systems in mitigating the consequences of an accident. The licensee's failure to initiate a PID for the FI 1124 indicator due to its degraded and erratic indication is indicative of a lack of a questioning attitude by operators. In addition, by not posting the PIDs that were open in the licensee's work control process, there was no indication to the operators that instruments which provide important information were degraded.

c. Conclusions

Operations identification and awareness of degraded service water flow instruments was poor. The failure to initiate a problem identification tag for a degraded instruments demonstrated a lapse in operator performance in identifying problems. Also, the operators did not physically post the PID tags near the degraded instruments which led to an inconsistent awareness by operators regarding the status of those flow indicators. Specifically, some operators were not aware that the indicators were in a degraded condition and may not be relied on during accident conditions.

O2.2 Heater Drain Pump Trip and Degraded Check Valve

a. Inspection Scope (71707, 62707, 37551)

The inspector reviewed a sequence of events during the planned power reduction to repair the leaking seal on a heater drain pump (HDP). Specifically, the inspector reviewed two instances where poor communication and lack of attention to detail caused the operators to respond to unexpected conditions.

b. Observations and Findings

On July 17, 1999, while attempting to remove the 31 heater drain pump from service in order to repair a leaking mechanical joint, the operator inadvertently tripped the 32 heater drain pump. This occurred due to the sensitivity of the level controllers for the heater drain tank, the lagging responses from the controllers to the heater drain pump discharge valve, and the nuclear plant operator's inattention to detail in verifying an expected response from equipment being manipulated. Specifically, as the NPO took manual control of the 31 HDP discharge valve and began closing it, the tank level increased and concurrently the 32 HDP discharge valve began opening in a time lagged manner. The NPO responded to the increase in the tank level by immediately reopening the 31 HDP discharge valve, which caused the 32 discharge valve to close and the pump to trip due to the low flow condition. The inspector noted that there was no DER written for the inadvertent tripping of the 32 HDP. Because of this, a potential human performance error would not be captured and tracked in the licensee's performance indicators. Discussions with the system engineer did indicate that enhanced training for the NPOs would be conducted to provide more knowledge on the response of the level indicators and the time lag response of the HDP discharge valves. The inspector concluded that the NPO had inadequate knowledge of the expected equipment responses causing the 32 HDP trip. Also, the absence of a DER to capture this human performance error is inconsistent with NYPA management expectations.

Also during this evolution, a second incident occurred when the 31 HDP was removed from service. Once the pump was removed from service the operators noted that the heater drain tank level was increasing at a fast rate. Apparently, the check valve on the discharge of the 31 HDP failed to fully close and created a direct flow path from the running 32 HDP into the heater drain tank. Once the operators identified that the 31 HDP was rotating in reverse, they responded immediately by closing the 31 level control

valve on the discharge side of the pump. This action caused enough of a pressure differential to seat the check valve. Further review by the NRC revealed that this same problem had occurred once before in August 1998. At that time, a problem identification tag had been initiated for this check valve; however, this was not known to those performing the system manipulations and was not identified by station management until the event critique two days after the check valve stuck the second time. The system engineer was aware of this problem but the information had not been communicated to operations prior to the manipulations of the system. After the first event in August 1998, the licensee made no formal documentation as to any precautions that the operators should take because of this degraded check valve. The licensee currently plans to inspect and repair this check valve during the upcoming refueling outage.

c. Conclusions

Operations personnel performance while removing a heater drain pump from service was ineffective. Poor attention to detail caused an inadvertent trip of the 32 heater drain pump (HDP) while attempting to remove the 31 heater drain pump from service. In addition, the licensee did not initiate a deviation event report on this issue, and therefore did not identify a potential human performance error regarding the inadvertent HDP trip. Also, weaknesses in interdepartmental communications, engineering support and work control coordination led to a condition that could have created a potentially significant secondary plant transient. Specifically, precautions were not communicated to the operators regarding a degraded HDP check valve prior to removing its respective pump from service.

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 97-05507-00, "Spent Fuel Pool Alternate Cooing Modification Installation,"
- WR 96-05786-17, " 32 EDG Alternate SW Discharge Temporary Modification Installation"
- WR 97-04467-00, "Isolation Valve Seal Water System Test Connection Modification"

c. Conclusions

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.

M1.2 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-M13A, Reactor Protection Logic Train 'A'
- 3PT-M79B, 32 Emergency Diesel Generator Monthly Surveillance
- 3PT-M01, Nuclear Power Range Instrument Calibration
- 3PT-Q16, SW Valve Functional Test
- 3PC-M01, Nuclear Instrument Axial Offset Calibration

c. Conclusions

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 observed surveillances. Test instrumentation was within calibration, and the test acceptance criteria were achieved.

III. ENGINEERING

E1 Conduct of Engineering

E1.1 Isolation Valve Seal Water Test Connection Modification NCV 99005-01

a. Inspection Scope (37551, 62707)

The inspectors reviewed the engineering modification and work planning packages which modified the isolation valve seal water lines to include test connection tubing.

b. Observations and Findings

Modification package 98-3-056, installed test connections in the isolation valve seal water system (IVSWS) to provide the capability to perform individual local leak rate tests of the containment isolation valves. This modification was intended to allow for better

outage management and provide a means to test the IVSWS check valves without disturbing the in-line mechanical joints. This modification was originally scheduled to be performed during refueling outage 10 (RO10); however, the licensee reviewed the scope of the work and determined that most of the modification could be performed safely on line.

On July 22, the licensee was to begin implementing the modification on the first of four IVSW zones. When the nuclear plant operator was applying the protective tagout to isolate the system, he noted that one of the process lines that was affected was the chemical and volume control system (CVCS) letdown line. This line contains reactor coolant flow at 250 psig and 300°F. This line could not be isolated while the letdown system was in service and therefore the only isolation between the process line and the nuclear plant operator tagging out the system would have been a single 3/8" check valve, for which there was no recent leak test data. The shift manager put a hold on this work until further review of the work package and modification paper work could be completed. The inspector reviewed the nuclear safety evaluation and the engineering modification package for this work. The inspector concluded that this protective tagout was deficient and did not provide adequate personnel or plant protection. The tagout was never relied upon for protection because the shift manager identified and stopped work on a potentially unsafe condition. This work was deferred until the process line can be safely depressurized.

On July 27, the licensee proceeded with other portions of the modification and tagged out a different IVSWS zone. The process lines in this zone could be easily isolated to ensure personnel and plant safety during the modification. However, the licensee's work control process called for the removal of the protective tagout prior to performing a leak test on the newly installed IVSWS test connection tubing. When the PTO was removed the containment sump process line isolation valves automatically opened which provided a direct release path from the containment sump line to the primary auxiliary building atmosphere because the newly installed tubing had not been isolated properly. The NPO noted water leaking from the newly installed modification, notified the control room, and then re-closed the containment sump process line isolation valves. The licensee made a one hour report to the NRC in accordance with 10 CFR 50.72, for being outside the plant design basis for containment integrity.

The inspector reviewed the licensee's work packages for this modification and determined that an inappropriate review of the design of the process line system in conjunction with inadequate control of testing led to this event. Specifically, the licensee did not recognize that once this modification had been installed a direct leak path between the containment sump and the primary auxiliary building would be established when the containment sump process line valves were opened. This direct path was due to the fact that the system was returned to service with its manual isolation valve open per the modification documents and the improper cap being installed on the end of the tubing. These inappropriate actions would have been discovered and the inadvertent containment leakage avoided if the licensee had properly tested the modification prior to removing the PTO. This failure to assure that containment integrity was maintained after the implementation of a modification is a violation of 10 CFR Part 50, Appendix B,

Section XI, "Test Control." The issue is currently in the licensee corrective action program as DER 99-1517. **(NCV 99005-01)**

c. Conclusions

The licensee's development and implementation of a test connection modification to the isolation valve seal water system was poor in that it did not address significant issues associated with plant and personnel safety. Specifically, the modification did not identify the potential for a containment release path after a portion of the modification was installed. The failure to properly test the function of the tubing modification prior to placing it in the containment isolation boundary is a violation of 10 CFR Part 50, Appendix B, Section XI, "Test Control." However, this Severity Level IV violation is being treated as a Non-Cited Violation because the issues were licensee identified and the corrective actions taken were adequate, consistent with Appendix C of the NRC Enforcement Policy. **(NCV 99005-01)**

E2 Engineering Support of Facilities and Equipment

E2.1 Residual Heat Removal System (RHR) Flow Indication - NCV 99005-02

a. Inspection Scope (37551, 71707)

During a walkdown of the control room panels, the inspector noted that flow indicator FI-640, which senses flow through one of the two residual heat removal system headers, displayed a reading of about 850 gpm with no flow through the header. The corresponding computer reading for FI-640 showed a flow of 959 gpm. The operators stated that this anomalous indication was previously identified by DER 99-01204 and operability determination (OD) 99029 was generated to address the issue. The inspector reviewed and assessed the quality of the DER resolution and the OD.

b. Observations and Findings

Operations identified on June 18, 1999, in DER 99-1204 that the FI-640 read about 1000 gpm with no flow present. The DER further documented that the transmitter may need venting and that a priority 3 (urgent) plant identified deficiency (PID 46208) was initiated. However, work control canceled this PID on June 21, 1999, at the request of the shift manager, who based his decision on OD 99029.

OD 99029 documented the licensee's conclusion that the flow instrument was reading correctly and that no hardware correction was necessary. This conclusion was based upon the following considerations:

- Flow instrument FI-640 is calibrated from -24.0 inches to +276 inches of water (vice zero inch to 300 inches) to compensate for a 24 inch elevation difference between the high and low side sensing line taps to the flow transmitter. As a result, when the transmitter senses zero inches of water, the indicator should read 974.4 gpm.

- "Under static conditions, as is the case currently, there is no flow and therefore no [differential pressure] generated across the transmitter."

- The licensee opened the equalizing valve between the high and low side sensing lines and noted that the flow indication did not change. This observation supported the licensee's belief that the transmitter was sensing zero differential pressure and that the flow indication properly reflected the pressure sensed at the transmitter.

However, the inspector noted that the logic for the operability determination was deficient and did not have an adequate supporting technical bases. Specifically, there were no calculations or documentation to support the physical offset between the high and low pressure sensing lines. Also, the OD assumes that at higher flow rates the error in the indication will be within the tolerance of the instrument but it did not address lower flows that may be possible under some accident conditions.

When these observations were presented to the licensee, the licensee issued an addendum to the operability determination. Although the addendum provided a more detailed description of the indicators performance, it did not fully address all conditions that this indicator may be used, nor did it have documented calculations or design data to support its theories. Further the licensee reopened the DER, which had been previously closed. Currently, the licensee has initiated an action commitment tracking item (ACTs) to perform further testing on the flow indicator during refueling outage RO10. Lastly, licensee management requested that the independent safety engineering group perform an independent review of this issue. The review concluded that both the original and the revised operability determination contained several technically unsubstantiated statements. As a result, the licensee declared the flow indicator inoperable.

Based on NYPA's response to Generic Letter 82-33, "Supplement 1 to NUREG-0737, "Requirements for Emergency Response Capability," flow transmitter FI-640 was categorized as a Type D, Category 2 instrument in accordance with Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident." A Type D variable provides information to indicate the operation of individual safety systems and other systems important to safety.

The inspector determined that the licensee did not adequately address an anomalous reading associated with FI-640; and, as a result, a condition adverse to quality was not promptly corrected. Specifically, a DER and PID were written on June 18, 1999. On June 21, 1999, both of these corrective actions tools were closed based on the incomplete operability determination. After questions raised by the NRC inspectors, the licensee took corrective actions to review engineering evaluations and plan further testing during the refueling outage. The failure to promptly correct a condition adverse to quality is a violation of 10 CFR Part 50, Appendix B, Section XVI, "Corrective Actions." However, this Severity Level IV violation has been appropriately entered into the

licensee's corrective action program and is being treated as a Non-Cited Violation consistent with Appendix C of the NRC Enforcement Policy. **(NCV 99005-02)**

c. Conclusions

The operability determination for an anomalous reading for a residual heat removal system flow transmitter was flawed and reflected weak engineering support to operations. As a result, corrective action to address this deficiency, such as venting the transmitter, was not performed and no additional actions planned until the issue was raised by the NRC. The failure to promptly correct a condition adverse to quality is a violation of 10 CFR Part 50, Appendix B, Section XVI, "Corrective Actions." This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. **(NCV 99005-02)**

IV. PLANT SUPPORT

P1 Conduct of Emergency Preparedness Activities

P1.1 NRC Observed Annual Emergency Preparedness Exercise

a. Inspection Scope (82301)

The inspectors reviewed the objectives of the 1999 partial participation emergency preparedness exercise and observed the licensee during the implementation of the exercise scenario.

b. Observations and Findings

The inspectors reviewed the licensee's partial participation emergency preparedness exercise scenario against the guidance in NUREG 0654, "Criteria for preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." The inspector noted that the appropriate objectives were being exercised during this drill and that the scenario was of sufficient difficulty to challenge the responsible parties who implement the emergency plan.

The inspector observed the initiation of the emergency exercise scenario in the licensee's simulator facility. The appropriate levels of emergency management were established immediately upon the notification of an unusual event.

The inspector observed the remainder of the exercise from the licensee's technical support center (TSC). Overall the drill activities were implemented in accordance with the licensee's procedures and adhering to the NRC guidance for emergency drills. The inspectors noted that the TSC was appropriately staffed in a timely manner and a second shift roster was developed prior to the release of non essential personnel. The briefings were thorough and the escalation of the emergency action levels was in accordance with the licensee's guidelines.

c. Conclusions

Overall, the conduct of the emergency preparedness drill was good and the self assessment was thorough in identifying discrepancies and providing for program enhancements. The licensee's partial participation emergency exercise drill was developed and implemented in accordance with NYPA's emergency response procedures and the NRC guidelines for emergency preparedness.

R1 Radiological Protection and Chemistry (RP&C) Controls

R1.1 Implementation of the Solid Radioactive Waste Program

a. Inspection Scope (86750-01)

The inspector selectively reviewed the availability of documentation of regulatory requirements, the licensee's verification of the license status of organizations to which it ships radioactive material and radioactive waste, applicable procedures, processes and vendors used for solid waste management, radioactive shipments made since the last inspection, use of scaling factors, radiological housekeeping, and the Process Control Program. Information was gathered through observation of activities, tours of the radiologically controlled areas including the primary auxiliary building (PAB), the radioactive machine shop building (RAMS), and fuel storage building (FSB). The inspection also consisted of discussions with cognizant personnel, and review and evaluation of procedures and documents.

b. Observations and Findings

The licensee's Solid Radioactive Waste Process Control Program (PCP) documentation was reviewed and found to be detailed and comprehensive. The documentation included the PCP (Revision 4), the licensee's Waste Classification Compliance Program procedure (Revision 6), and 10 CFR 61 Sampling procedure (Revision 0). Liquid radioactive waste was processed through a vendor filter/demineralizer skid. Spent resins and filters were dewatered in high integrity containers (HICs). There was a "green is clean" program to minimize the generation of radioactive waste, and the collected materials were shipped to an offsite vendor for processing. Offsite contracted services were available for equipment/parts decontamination and for super-compaction or incineration of dry active waste. The interim radioactive waste storage facility (IRWSF) provided high bay areas for storage of low level waste and a separate shielded area for storage of higher level waste such as HICs filled with spent resin. A large portion of this storage facility was still available. The Replaced Steam Generator Storage Facility (RSGSF) remained dedicated to the four steam generators removed in 1989. The IRWSF and the RSGSF were outside the protected area. The licensee had five additional radioactive material holding areas outside the protected area. All of these radioactive material storage facilities/areas were properly secured and posted. One of the open-air storage areas had been improved by having the previously-unpaved storage surface covered with asphalt.

Housekeeping in the toured areas was satisfactory. Aisles were clear and free of clutter and debris, and storage areas were clean and orderly; contaminated areas were minimized; radioactive material was clearly and properly labeled and stored in an orderly fashion.

c. Conclusions

The solid radioactive waste management program continued to be effective based on proper implementation of the program by knowledgeable personnel, the existence of appropriate procedures and controls, and the acceptable condition of facilities and equipment. The Process Control Program documentation provided a complete and detailed description of the waste types generated, waste stream sampling and analyses performed, and waste processing methods used.

R1.2 Compliance with NRC and DOT Regulations for Shipping of Low Level Radioactive Waste (LLRW) for Disposal and Transportation of Other Radioactive Materials

a. Inspection Scope (86750-01)

The inspector selectively reviewed a variety of completed shipping documentation packages. The review included documentation for shipments of dewatered resin, filter cartridges, contaminated protective clothing and other launderable items, dry radioactive waste, 10 CFR 61 samples, a sealed source, and a radioactive device (an alloy analyzer). These reviews included the radiation and contamination surveys, the licensee's determination of Department of Transportation (DOT) shipment subtype, packaging, marking, labeling, and placarding requirements, shipping paper requirements, driver's instructions, and emergency response information. Information was gathered through observation of activities, tours of the radiologically controlled area (RCA), discussions with cognizant personnel, and review and evaluation of procedures and documents.

b. Observations and Findings

Overall, the reviewed shipping records were found to be appropriate and complete. The waste classifications and (DOT) shipment type determinations for these shipments were evaluated and met regulatory requirements. The waste manifests and shipping papers were properly completed. The individuals authorized to sign shipping manifests were designated in writing. Certifications for burial containers (HICs) and for shipping casks were available. Current regulations and licenses for the entities to whom shipments were sent were on file and readily available.

c. Conclusions

The program to transport low level radioactive waste and other radioactive materials was effective. Overall, shipping manifests and supporting documentation were properly prepared, radiation and contamination limits were met, waste was properly classified, and shipments were properly typed as to their DOT class.

R5 Staff Training and Qualification in RP&C

a. Inspection Scope (86750-01)

The inspector selectively reviewed the periodic training of personnel relative to NRC Bulletin No. 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial," and relative to the Subpart H-Training of 49 CFR 172. Information was gathered through discussions with cognizant personnel and review and evaluation of procedures and documents.

b. Observations and Findings

The training for radioactive waste processing, handling/transferring, packaging, and shipping, for waste burial site requirements, and for hazardous materials was provided by a combination of in-house training and training by contractors. The scope and depth of the course materials used for the training of the radioactive waste handlers and shippers was fully adequate. The inspector verified that these individuals had been recently trained in the aforementioned topics and that the two individuals who were responsible for classifying waste and determining DOT shipment type had been retrained or were scheduled for retraining at the appropriate frequency.

A description of the required training for radioactive waste processors, handlers/ transferors, classifiers, and shippers was documented, and the current training status for these individuals was readily available. The retraining status of individuals and training needs and improvements were addressed at quarterly meetings involving personnel from the training and user organizations. Therefore, the training program was evaluated to be well organized and documented.

c. Conclusions

The NRC and DOT training and retraining requirements for the radioactive waste group personnel were met. The training program for personnel involved with solid radioactive waste activities and with the transportation of radioactive materials remained well organized, fully implemented, and well documented.

R7 Quality Assurance in RP&C Activities

a. Inspection Scope (86750-01)

The inspector reviewed the licensee's two surveillance reports conducted since the last inspection in this area. These surveillances (SR Nos. 8-11 and 8-14) covered plant resin transfers and shipments. Self-assessments for the first and second quarters of 1999 were reviewed. The inspector also reviewed the problems identified in the DER process and the evaluations and corrective actions for those problems. Information was gathered through discussions with cognizant personnel and review and evaluation of documents.

b. Observations and Findings

The two Surveillance Reports covering spent resin transfers and shipments were performed in 1998. These reports resulted in the issuance of two DERs. The Surveillance Reports showed that the surveillance activities were detailed and comprehensive in that they covered the full scope of each evolution.

The first quarter self-assessment addressed the impact of the expiration of use of NRC-approved Type A containers for greater than Type A Low Specific Activity (LSA) quantities and the conversion of those containers to DOT Specification 7A Type A packages, and the second quarter one addressed a self-audit of radioactive material shipment files. Each self-assessment was focused and well detailed. Numerous recommendations were documented including the identification of specific procedural changes needed.

Several of the DERs were reviewed in detail. In each case, the deficiency was documented, evaluated for cause, and resulted in some immediate corrective action/s and, in some cases, in future corrective action/s. The evaluations for cause were adequate. The evaluations identified the need for expansion of scope in some cases. The corrective actions were technically acceptable, appropriate, and timely.

c. Conclusions

Surveillances, self-assessments, and other methods used for problem identification and resolution were being performed in an effective manner. Surveillance reports identified items for corrective action. The two most recent self-assessments were detailed and identified numerous recommendations for improvement. Problems were being identified and put into the corrective action program, and appropriate and timely corrective actions were being instituted.

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 June 25, 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 August 5, 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 Plant Performance Review Public Meeting

On July 23, 1999, members of the NRC Region I management team met with NYPA in a public meeting to discuss the results of the plant performance review letter dated April 9, 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 99005-01	Isolation Valve Seal Water Test Connection Modification
NCV 99005-02	Residual Heat Removal System Flow Indication

Closed

NCV 99005-01	Isolation Valve Seal Water Test Connection Modification
NCV 99005-02	Residual Heat Removal System Flow Indication

LIST OF ACRONYMS USED

ACT	action commitment tracking
CFR	Code of Federal Regulations
CVCS	chemical and volume control system
DER	deviation event report
DOT	Department of Transportation
EDG	emergency diesel generator
FCU	fan cooler unit
FI	flow indicator
FSB	fuel storage building
HDP	heater drain pump
HIC	high integrity container
IRWSF	interim radioactive waste storage facility
IVSWS	isolation valve seal water system
LLRW	low level radioactive waste
LSA	low specific activity
NCV	non-cited violation
NPO	nuclear plant operator
OD	Operability determination
PAB	primary auxiliary building
PCB	process control program
PID	Problem Identification
RAMS	radioactive machine shop building
RCA	radioactive controlled area
RHR	residual heat removal
RP&C	Radiological Protection and Chemistry
RSGSF	replaced steam generator storage facility
TSC	technical support center