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REGION I

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EXECUTIVE SUMMARY

Maine Yankee Atomic Power Company
NRC Inspection Report 50-309/97-07

This integrated inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a 7-week period of resident inspection; in addition, it includes the results of announced inspections by a regional safeguards inspector and a radiation specialist inspector.

Operations

On August 7, 1997, Maine Yankee filed notice of permanent cessation of operations and permanent removal of the fuel. On August 27, 1997, Maine Yankee submitted a Post Shutdown Decommissioning Activities Report which outlined their plans to promptly proceed with the decon option for decommissioning.

Maine Yankee is focused on maintaining systems available to support spent fuel pool cooling. The status of the spent fuel pool cooling systems continues to be adequately monitored by the outage risk program.

The installation of temporary fans in the protected switchgear room without analysis is an unresolved item. **(URI 50-309/97-07-01)**. The failure to invoke the temporary modification procedure is a recurring issue that was previously documented in NRC inspection report 50-309/97-01.

Maintenance

The inspector observed a notable effort by maintenance in maintaining industrial safety, plant cleanliness, and area access. Maintenance activities were performed in accordance with procedures and with appropriate oversight by health physics, quality, and management.

Engineering

The review of engineering design change requests by the plant operations review subcommittee was thorough and technical. The composition of the team was appropriate to perform the review. Issues identified were resolved and appropriately incorporated into the documents.

Plant Support

The licensee maintained an effective security program. The land vehicle barrier was inspected and found installed and maintained as described in the NRC-approved Physical Security Plan and applicable procedures.

The inspector concluded that procedures and training were properly implemented to address a situation requiring the evacuation of the control room.

The licensee continued to implement an excellent radiological environmental monitoring program (REMP) including management controls, quality assurance audit, measurement laboratory quality assurance/quality control (QA/QC) for REMP samples, and meteorological monitoring program. The Offsite Dose Calculation Manual (ODCM) was upgraded and properly implemented. The self-assessment by the licensee and by a contractor were very good and effectively assessed program strengths and areas to be enhanced.

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Summary of Plant Status

Maine Yankee began this inspection period in a plant preservation mode pending decisions regarding a future sale or decommissioning of the facility. During the inspection period the potential sale of Maine Yankee was abandoned and a decision was made by the owners to proceed with decommissioning. This action resulted in a dramatic shift in activities at the site. All but a few outage activities were discontinued and reductions in staff and changes to the organization were in progress. On August 7, 1997, Maine Yankee filed notice of permanent cessation of operations and permanent removal of the fuel. On August 27, 1997, Maine Yankee submitted a Post Shutdown Decommissioning Activities Report which outlined their plans to promptly proceed with the decon option for decommissioning.

I. Operations

O1 Conduct of Operations

O1.1 General Comments (71707)

Using Inspection procedure 71707, the inspectors conducted reviews of ongoing plant operations. The focus of operations was developing the plant conditions desired for long-term storage of the fuel and long-term layup conditions for systems no longer required. During this initial phase of decommissioning, operators remained attentive to the safe operation of the spent fuel pool systems and technical specification requirements that remain in effect.

O2 Operational Status of Facilities and Equipment

O2.1 Review of Plant Conditions

a. Inspection Scope

The inspector reviewed the status of facilities required for continued storage of fuel in the spent fuel pool.

b. Observations and findings

The spent fuel pool cooling system at Maine Yankee consists of the spent fuel pool, two cooling pumps, and a heat exchanger. The heat exchanger is normally cooled by the primary component cooling system (PCC), however it was being cooled by an alternate, the secondary component cooling system (SCC). The use of the SCC system was a temporary modification that was installed during the outage to allow maintenance on the PCC system. The fire water system provides a backup to the PCC/SCC system. PCC/SCC are cooled by the service water system, which pumps river water through the system to cool components. These systems plus their controls, instrumentation, and power systems are the primary systems of concern

during the decommissioning phase.

Maine Yankee is continuing with maintenance activities to return the PCC system to operation and to correct minor deficiencies on the other related systems. Reviews of the work order system and preventive maintenance program were conducted to identify required maintenance activities. The status of the spent fuel pool cooling systems continues to be adequately monitored by the outage risk program.

In addition to returning the spent fuel pool cooling systems to optimum configurations, a group has been formed to develop an alternate spent fuel pool cooling system. This new system will be simpler and allow decommissioning of the larger more complex systems currently in use. Maine Yankee plans to implement this change as a plant modification.

c. Conclusions

Maine Yankee is focused on maintaining systems available to support spent fuel pool cooling. The status of the spent fuel pool cooling systems continues to be adequately monitored by the outage risk program.

04 Operator Knowledge and Performance

O4.1 Installation of Temporary Fans

a. Inspection Scope

The inspector reviewed the adequacy of temporary fans found installed in the protected switchgear room.

b. Observations and findings

During a plant tour on July 31, 1997, the inspector noted four temporary fans installed in the protected switchgear room. The fans were arranged in series such that cool air was blown from the back of the room, between the cabinets, with the last fan blowing across the room temperature detector. The inspector questioned the control room operators as to the adequacy of the configuration and the controls used to install the fans.

An engineer measured temperatures in the room and concluded that the room temperature indicator was still indicating a representative temperature for the room (89°F), although the temperature was five degrees below the highest temperature in the room.

The fans were installed due to concerns with increasing temperatures in the room, and were intended to provide better mixing of air in the room. However, the fans, a temporary modification to the ventilation system shown in the Final Safety Analysis Report (FSAR), were not installed in accordance with the temporary modification

procedure.

The protected switchgear room had a history of reaching the alarm setpoint of 99°F during periods of hot weather. Above 99°F the alarm response procedure directs operators to increase monitoring of temperature in the room. At greater than 115°F operators are instructed to open doors and induce ventilation into the room with temporary fans. However, the installation of the fans within the protected switchgear room was not done as a response to the conditions of the alarm response procedure.

The Maine Yankee temporary modification procedure, 0-14-2, revision 17, contains requirements to perform reviews required by 10 CFR 50.59 to assure the modification does not constitute an unreviewed safety question. However, by not invoking the temporary modification procedure, these reviews were not done for the installation of the four temporary fans.

The temporary fans were removed from the protected switchgear room and the temperatures remained low enough without the fans. Operators were briefed on the event and the need to identify temporary modifications. Tours of the plant were conducted to assure other examples were identified and corrected. Operations revised the temporary modification procedure to provide additional guidance on when the procedure should be invoked.

c. Conclusions

Maine Yankee made changes to the facility as described in the FSAR, by installing four temporary fans in the protected switchgear room, without performing a written safety evaluation for these changes to provide the basis for the determination that the changes did not involve an unreviewed safety question (USQ). The failure to invoke the temporary modification procedure is a recurring issue that was previously documented in NRC inspection report 50-309/97-01, and remains part of a pending escalated enforcement action. This item remains unresolved pending the resolution of pending enforcement actions. **(URI 97-07-01)**

08 Miscellaneous Operations Issues

08.1 Review and Closure of Open Issues

Previously opened issues related to systems or components no longer required to be maintained in the current plant condition were reviewed. The below issues were determined to no longer have any safety or regulatory significance with the plant in the decommissioning mode. The following list of unresolved items (URIs), licensee event reports (LERs), and follow-up of previously cited violations (VIOs) were reviewed and are closed.

50-309/93-03-00 LER Expiration of DC solenoid pilot valve EQ service life

50-309/93-09-00	LER	Inoperable emergency core cooling subsystems during pump recirculation valve stroke testing
50-309/93-11-00	LER	Containment hatch "O" ring maintenance
50-309/94-09-00	LER	Alternating ECCS subcomponents causes inoperable ECCS subsystems
50-309/94-16-00	LER	Emergency feedwater isolation valve leakage
50-309/95-07-00	LER	A Train spray system valve actuation power supply from B
50-309/95-12-00	LER	RHR spring reliefs determined inadequate
50-309/95-10-00	LER	Potential inability of CS-M-1 & 2 to perform safety function
50-309/96-02-00	LER	ECCS valve was found not positioned correctly
50-309/96-14-00	LER	Potentially non-conservative symmetric offset trip set point
50-309/96-29-00	LER	Main feedwater regulating bypass valve leaky
50-309/96-33-00	LER	Entry into TS 3.0.A for both PZR heater banks inoperable
50-309/95-35-00	LER	Requirement for post accident iodine sampling removed from procedure
50-309/96-06-02	URI	Emergency operating procedure deficiency
50-309/96-06-03	URI	Symmetric offset trip calculator
50-309/96-08-01	URI	RWST level transmitters exposed to harsh environment
50-309/96-10-02	URI	EQ for PCCW and SCCW pump motors
50-309/96-12-02	URI	Unplanned reactor power increase
50-309/94-15-02	VIO	10 CFR Part 50, Criterion V, Written Instructions
50-309/95-26-01	VIO	Water spill in containment

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Comments

During the period maintenance activities were greatly curtailed due to the decision to decommission the facility. A primary focus for the maintenance department was to collect the open work requests, assess the status of open work, and place the plant in the desired condition. The inspector observed a notable effort by maintenance in maintaining industrial safety, plant cleanliness, and area access. Work also continued on select jobs such as restoration of the PCC system, spent fuel pool reracking, and manipulation of components within the containment building. These evolutions were performed in accordance with procedures and with appropriate oversight by health physics, quality, and management.

III. Engineering

E7 Quality Assurance in Engineering Activities

E7.1 Engineering Document Reviews

a. Inspection Scope

Due to deficiencies previously identified, Maine Yankee formed an engineering design change request (EDCR) review subcommittee to review technical evaluations and 10 CFR 50.59 evaluations that were previously performed and are still relevant to the current plant conditions. The inspector attended an EDCR review subcommittee meeting to evaluate the process.

b. Observations and findings

The EDCR review subcommittee reviewed technical evaluations and 10 CFR 50.59 evaluations that were relevant to the current plant conditions and had not been previously reviewed by the plant operating review committee (PORC). This criteria resulted in approximately 60 evaluations.

The EDCR review subcommittee consisted of representatives from engineering, quality control, operations, and licensing. The EDCR's were reviewed for clarity, completeness, and technical adequacy. The EDCR's were reviewed individually by the members and then discussed at the meeting. Recommendations were incorporated into the documents.

Issues identified by the team generally involved insufficient detail in the documents to support the conclusions. However, to date no deficient documents were

identified. The inspector reviewed a sampling of documents and agreed with the subcommittee's conclusions.

c. Conclusions

The review of engineering design change requests by the EDCR review subcommittee was technically sound and comprehensive. The composition of the team was appropriate to perform the review. Issues identified were resolved and appropriately incorporated into the documents.

IV. Plant Support

R1 Radiological Protection and Chemistry (RP&C) Controls

R1.1 Implementation of the Radiological Environmental Monitoring Program

a. Inspection Scope (84750-02)

The inspection consisted of: (1) physical walkdown of sampling stations; (2) review of the selected licensee's procedures; (3) review of selected sampling records with respect to technical specification/offsite dose calculation manual (TS/ODCM) requirements; (4) implementation of the environmental thermoluminescent dosimetry (TLD) program; (5) land use census; and (6) review of the location of sampling stations.

b. Observations and Findings

The inspector toured all milk farms, air sampling stations, and selected other monitoring stations (i.e., fish, clams, mussels, vegetation, water, and TLDs). Milk samples at the designated farms were available and all air sampling equipment was operable at the time of the tour. The inspector also toured the indication and the control aquatic sampling stations (fish, mussels, clams, algae, and water) by the licensee's sampling boat. During the boat tour, the inspector noted that the location of liquid discharge diffusers were in the middle of the channel which was the best location to obtain a good dilution factor. A proper dilution factor is needed to calculate realistic projected doses to the public. The licensee obtained routine aquatic samples at the diffuser as indicator samples which was very good. The control station was located in a different channel that was not effected by the radioactive liquid discharge diffusers, as required by the ODCM.

The inspector noted that reviewed radiological environmental monitoring program (REMP) procedures were detailed, easy to follow, and ODCM requirements were incorporated into the appropriate procedures. The inspector also noted that these procedures were recently rewritten to better reflect requirements and to avoid any misinterpretations. The inspector determined that the licensee had very good procedures to satisfy the TS/ODCM/UFSAR requirements for the routine and

emergency operations.

The inspector reviewed the 1997 sampling logs and analytical results. The licensee performed sampling as required. The analytical results did not indicate any adverse trend. The licensee took extra aquatic samples (soft shell clams) at two locations and deer meat samples. These samples were split between the licensee and the State of Maine for comparisons. The sampling frequency of algae was increased from seasonal to monthly. In fact, the licensee sampled and analyzed more environmental samples than required by the TS/ODCM.

The inspector reviewed the implementation of the environmental TLD program. The licensee handled TLDs appropriately to minimize transient exposure. The inspector reviewed the trending analysis results for the environmental TLD measurements and noted that there were no abnormal readings. The 1996 Annual Land Use Census Report contained the location of the nearest milk animal, residence, and garden within a distance of five miles and 16 sectors, as required by the TS/ODCM. The 1996 Land Use Census was conducted by the licensee and Yankee Atomic Environmental Laboratory staff members. The inspector determined that the licensee evaluated required areas and they were of sufficient technical depth to assess any changes in these areas.

The licensee used the Global Positioning System (GPS) to verify air particulates and iodine, TLDs, water, fish, and mussels sampling locations listed in the ODCM. The accuracy of the GPS was about 1 to 5 meters. The licensee was updating Table 5.1 of the ODCM for the exact sampling location (the distance and direction from the plant). The distance and direction from the plant for milk farms, residences, and gardens will be determined using the GPS in the near future, and the ODCM is expected to be updated accordingly.

c. Conclusion

Based on the above observations and findings, the inspector determined that the licensee maintained, implemented, and enhanced the REMP since the last inspection conducted in April 1996.

R2 Status of RP&C Facilities and Equipment

R2.1 Calibration of Meteorological Monitoring System and Air Sampler

a. Inspection Scope (84750-02)

The inspection consisted of: (1) review the most recent meteorological instrumentation calibration results for wind speed, wind direction, and delta temperature; and (2) review of air sampler calibration data.

b. Observations and Findings

The licensee followed Regulatory Guide 1.23 (described in UFSAR) for its meteorological monitoring program. The licensee performed these calibrations quarterly. The inspector reviewed calibration results for the fourth quarter of 1996 and the first and second quarters of 1997. All reviewed calibration results were within the licensee's acceptance criteria. The inspector also verified the operability of meteorological readout devices located in the control room. The readout devices and meteorological instrumentations were operable at the time of this inspection. The inspector reviewed the 1996 Meteorological Summary Report, which was submitted to the NRC. The report contained parameters described in Regulatory Guide 1.23.

The inspector reviewed the most recent calibration results for air samplers. All reviewed calibrations for air samplers were performed at the required frequencies and results were within the licensee's acceptance criteria.

c. Conclusion

Based on the above reviews, the inspector determined that the licensee continued to effectively implement a very good meteorological monitoring program and the air sampler calibration program.

R3 RP&C Procedures and Documentation

a. Inspection Scope (84570-02)

The inspection consisted of: (1) review of selected procedures to conduct the REMP; (2) 1995 and 1996 Annual REMP Reports; and (3) the ODCM.

b. Observations and Findings

The inspector reviewed the following procedures as part of the examination of the implementation of the TS/ODCM:

- 26-16-100, REMP
- 26-316-1, Effluent Environmental Monitoring
- 26-316-2, Ingestion Pathway Environmental Monitoring
- 26-316-3, Land Use Census
- 26-316-4, Environmental TLD Program
- 26-316-5, REMP Training Guidelines

Procedure 26-16-100 described, in part, the program objectives and responsibilities. Objectives and responsibilities were clearly defined and provided descriptive overviews and references for the REMP operational procedures, QC, and reporting

requirements. Other procedures were also well written and easy to follow, as described in Section R1 of this inspection report.

The inspector reviewed the 1995 and 1996 Annual Radiological Environmental Operating Reports. These reports provided a comprehensive summary of the analytical results of the REMP samples. The inspector also reviewed the annual reports that contained the Land Use Census data, which is required by the TS/ODCM. The inspector determined that there were no obvious anomalous measurements, omissions or trends in the reports.

The ODCM provided descriptions of the REMP sampling and analysis program for calculating projected doses to the public. All necessary parameters such as site-specific dilution factors and dose factors, were listed in the ODCM. The inspector noted that the licensee updated the ODCM frequently.

c. Conclusions

Based on the above reviews, the inspector made the following determinations:

- REMP procedures were sufficiently detailed to facilitate performance of all necessary steps for the routine and emergency operations,
- the licensee effectively implemented the TS/ODCM requirements for reporting requirements and projected dose calculation to the public, and
- the licensee's ODCM contained sufficient specification, information, and instruction to acceptably implement and maintain the REMP.

R6 RP&C Organization and Administration

a. Inspection Scope (84750-02)

The inspector reviewed organization changes and the responsibilities relative to oversight of the REMP and the meteorological monitoring program (MMP) since the last inspection, conducted in April 1996, to verify the implementation of Section 5.8.1.b. of the TS.

b. Observations and Findings

The licensee reorganized the REMP in September 1996. On October 1, 1996, the Licensing and Engineering Support (L&ES) department assumed full responsibility for the REMP from the Technical Support Department, included technical oversight of the radiological effluent technical specifications program. The Environmental Health Services/Emergency Preparedness (EHS/EP) section of the L&ES implemented the REMP. The environmental specialist of the EHS/EP section has responsibilities to conduct routine REMP activities and the principal engineer of the EHS/EP section has responsibilities to oversee the REMP, maintenance of the ODCM, and other

related duties. The EHS/EP staff had very good experience in this area.

The inspector interviewed the section head, principal engineer, and environmental specialist of the EHS/EP section regarding: (1) Maine Yankee's REMP philosophy; (2) routine and special operations; (3) training (including attending professional meetings and/or seminars); (4) interface with the public and State representatives; (5) upper management support; (5) validation of analytical results; (6) evaluation of QC data supplied by a contractor; and (7) enhancement of the REMP. The inspector noted that the assessment was comprehensive and thorough, and based on independent findings and observation agreed with the conclusion that the REMP program was effectively managed and staffed, that procedures were well implemented and that areas for improvement were sought. The inspector noted that the staff of the EHS/EP and an independent contractor recently assessed the REMP. The inspector also noted that the EHS/EP staff maintained good communication with other plant staff, state representatives, and the public.

c. Conclusions

Based on the above interviews and discussions, the inspector made the following conclusions:

- The EHS/EP staff had very good knowledge and performed excellent routine and special REMP operations and committed themselves vigorously with a view toward improvement; and
- The EHS/EP continued to effectively maintain, implement, and enhance the REMP.

R7 Quality Assurance (QA) in RP&C Activities

a. Inspection Scope (84750-02)

The inspection consisted of: (1) review of the 1996 QA audit, and (2) review of analytical measurements laboratory QA/QC.

b. Observations and Findings

The inspector reviewed the 1996 Quality Assurance Audit Report (Report Number MY-96-02). This audit was conducted by quality department personnel and covered the REMP and other areas, such as radioactive liquid and gaseous effluent controls. The inspector noted that the audit team also included other technical personnel from another utility. The 1996 audit team identified no findings but two recommendations to enhance the REMP. These two recommendations were not safety significant. The inspector noted that the scope and technical depth of the audits were sufficient for assessing the REMP.

The QA/QC program for analyses of REMP samples is conducted by Yankee Atomic

Environmental Laboratory (YAEL). The YAEL has interlaboratory (Department of Energy Environmental Measurement Laboratory and National Institute of Science and Technology) and intralaboratory QC programs. The QC program consists of measurements of blind duplicate, spike, and split samples. The YAEL published a QC report semiannually. The inspector reviewed the 1996 semiannual QC reports. Intra/interlaboratory comparisons QC data listed in the semiannual QC reports were within the YAEL's acceptance criteria.

c. Conclusion

Based on the above review and discussions with the licensee, the inspector determined that the licensee continued to conduct excellent QA audit and QC programs for the REMP to validate the analytical results.

S1 Conduct of Security and Safeguards Activities

a. Inspection Scope

Determine whether the security program, as implemented, met the licensee's commitments in the NRC-approved security plan (the Plan) and NRC regulatory requirements. The security program was inspected during the period of August 11-14, 1997. Areas inspected included: previously identified item; management support and audits; effectiveness of managements controls; and the vehicle barrier system (VBS).

b. Observations and Findings

A previous violation of NRC requirements involving the control of safeguards information was closed based on the inspector's review of the licensee's corrective actions as noted in the licensee's response to Notice of Violation. Management support is ongoing as evidenced by adequate manning levels to permit effective program implementation, and the Security Director's position in the organizational structure and reporting chain permits management's awareness of issues and concerns. Audits were thorough and in-depth and management controls for identifying, resolving, and preventing programmatic problems were effective.

Based on inspector's observations and discussions with plant engineering and security management, the inspector determined that the licensee's provisions for land vehicle control measures satisfy regulatory requirements and licensee commitments. As an enhancement to the inspection, the Updated Final Safety Analysis Report (UFSAR) initiative, Section 6.2 of the Plan, titled "Perimeter Barrier" was reviewed. The inspector determined, by observations, that the barrier was installed and maintained as described in the NRC-approved Physical Security Plan and applicable procedures.

c. Conclusions

The inspector determined that the licensee was conducting its security and safeguards activities in a manner that protected public health and safety and that the program, as implemented, met the licensee's commitments and NRC requirements.

S6 Security Organization and Administration

a. Inspection Scope

Conduct a review of the level of management support for the licensee's physical security program.

b. Observations and Findings

The inspector reviewed the licensee's level of management support to ensure effective program implementation since the last program inspection conducted in January 1997. The inspector determined, by a review of security shift rosters and discussions with security management, that the level of security staffing remained constant to ensure effective program implementation. Additionally, the inspector reviewed the Security Director's position in the organizational structure and reporting chain. The Security Director reports to the Manager Technical Support, who reports to the Plant Manager, who reports to the Vice President, Operations. Additionally, the inspector noted that the access authorization and fitness-for-duty (FFD) programs, being safeguards related, report directly to the Security Director.

c. Conclusions

Management support for the physical security program was determined to be effective. No problems with the organizational structure that would be detrimental to the effective implementation of the security and safeguards programs were noted.

S7 Quality Assurance in Security and Safeguards Activities

S7.1 Effectiveness of Management Controls

a. Inspection Scope

Determine if the licensee has controls for identifying, resolving, and preventing programmatic problems.

b. Observations and Findings

The inspector reviewed the licensee controls for identifying, resolving, and preventing security program problems. These controls included the implementation of a departmental self-assessment program, which includes the performance of self-assessments by security supervision and the performance of the NRC-required annual quality assurance (QA) audits. The licensee also utilizes industry data, such as violations of regulatory requirements identified by the NRC at other facilities, as criteria for self-assessment. The inspector reviewed documentation applicable to the performance of the self-assessment program and noted that in 1997 security supervision performed 130 self-assessments. The inspector determined, based on a review of the safeguards event logs and self-assessment results, that personal performance errors were minimal.

c. Conclusions

The inspector concluded that controls were effectively implemented to prevent and resolve potential weaknesses.

S7.2 Audits

a. Inspection Scope

Review the licensee's QA Report of the NRC-required security program audit to determine if the licensee's commitments as contained in the Plan were being satisfied.

b. Observations and Findings

The inspector reviewed the 1996 combined QA audit of the fitness-for-duty/access authorization (FFD/AA) program, conducted April 1-9, 1996, (Audit No. MY96-04B) and the 1997 combined QA audit of the FFD/AA program, conducted March 17-21, 1997, (Audit No. MY97-04B). The audits were found to have been conducted in accordance with the Plan and FFD rule.

The 1996 audit report identified no findings and three observations. The 1997 audit report identified seven findings. Three of the 1997 audit report findings were related to FFD procedural adherence issues and four of the findings were related to personnel processing requirements associated with the access authorization program. The inspector determined that the findings were not indicative of programmatic weaknesses, and the findings would enhance program effectiveness. The inspector determined, based on discussions with security management, FFD and AA program staffs, and a review of the responses to the findings, that the corrective actions were effective.

c. Conclusions

The review concluded that the audits were comprehensive in scope and depth, that the findings were reported to the appropriate levels of management, and that the audit program was being properly administered.

S8 Miscellaneous Security and Safeguards Issues

S8.1 Vehicle Barrier System (VBS)

General

On August 1, 1994, the Commission amended 10 CFR Part 73, "Physical Protection of Plants and Materials," to modify the design basis threat for radiological sabotage to include the use of a land vehicle by adversaries for transporting personnel and their hand-carried equipment to the proximity of vital areas and to include the use of a land vehicle bomb. The amendments require reactor licensees to install vehicle control measures, including VBSs, to protect against the malevolent use of a land vehicle. Regulatory Guide 5.68 and NUREG/CR-6190 were issued in August 1994 to provide guidance acceptable to the NRC by which the licensees could meet the requirements of the amended regulations.

Letters dated April 23 and May 14, 1996, from the licensee to the NRC forwarded Revisions 22 and 23 to its physical security plan that detailed the actions implemented to meet the requirements of 10 CFR 73.55 (c)(7),(8), and (9) and the design goals of the "Design Basis Land Vehicle" and "Design Basis Land Vehicle Bomb." A NRC September 30, 1996, letter advised the licensee that the changes submitted had been reviewed and were determined to be consistent with the provisions of 10 CFR 50.54(p) and were acceptable for inclusion in the NRC-approved security plan.

This inspection, conducted in accordance with NRC Inspection Manual Temporary Instruction 2515/132, "Malevolent Use of Vehicles at Nuclear Power Plants," dated January 18, 1996, assessed the implementation of the licensee's vehicle control measures, including vehicle barrier systems, to determine if they were commensurate with regulatory requirements and the licensee's physical security plan.

S8.2 Vehicle Barrier System (VBS)

a. Inspection Scope

The inspector reviewed documentation that described the VBS and physically inspected the as-built VBS to verify it was consistent with the licensee's summary description submitted to the NRC.

b. Observations and Findings

The inspector's walkdown of the VBS and review of the VBS summary description disclosed that the as-built VBS was consistent with the summary description and met or exceeded the specifications in NUREG/CR-6190.

c. Conclusion

The inspector determined that there were no discrepancies in the as-built VBS or the VBS summary description.

S8.3 Bomb Blast Analysis

a. Inspection Scope

The inspector reviewed the licensee's documentation of the bomb blast analysis and verified actual standoff distances provided by the as-built VBS.

b. Observations and Findings

The inspector's review of the licensee's documentation of the bomb blast analysis determined that it was consistent with the summary description submitted to the NRC. The inspector also verified that the actual standoff distances provided by their as-built VBS were consistent with the minimum standoff distances calculated using NUREG/CR-6190. The standoff distances were verified by review of scaled drawings and actual field measurements.

c. Conclusion

No discrepancies were noted in the documentation of bomb blast analysis or actual standoff distances provided by the as-built VBS.

S8.4 Procedural Controls

a. Inspection Scope

The inspector reviewed applicable procedures to ensure that they had been revised to include the VBS.

b. Observations and Findings

The inspector reviewed the licensee's procedures for VBS access control measures, surveillance, and compensatory measures. The procedures contained effective controls to provide passage through the VBS, provide adequate surveillance and inspection of the VBS, and provide adequate compensation for any degradation of the VBS.

c. Conclusions

The inspector's review of the procedures applicable to the VBS disclosed no discrepancies.

S8.5 Previously Identified Items

(Closed) VIO 50-309/96-12-08: On October 17, 1996, Safeguards Information was left unattended for approximately two hours on a desk in the security office inside the protected area.

With respect to the above violation (VIO), the inspector reviewed the corrective actions as noted in the licensee's "Reply to Notice of Violation" dated January 07, 1997. The inspector determined, that the corrective actions implemented by the licensee to address the above noted issue were reasonable, complete, and appeared to be effective.

F2 Status of Fire Protection Facilities and Equipment

F2.1 Control Room Fire Preparedness

a. Inspection Scope

Due to a recent industry event involving the inadvertent actuation of a control room halon fire suppression system, a review of the Maine Yankee control room fire system and procedures was conducted.

b. Observations and findings

The Maine Yankee control room does not have a built-in fire suppression system. Maine Yankee has fire detection only and relies on portable fire extinguishers and the fire brigade to fight any fires. The portable fire extinguishers were in place with current inspections and the fire brigade staffing requirements were met.

Procedure AOP-2-90-1, Plant Shutdown Plan for Fire in the Control Room, contained guidance for placing the plant in a safe condition and evacuating the control room. The procedure was reviewed with respect to the current operating conditions and was determined to still provide adequate guidance.

Although not specifically addressed by the operations procedure, there are five, 30-minute Air Packs staged in the control room and a number of packs immediately outside of the control room. The five packs are enough for each member of the normal operations crew. Operators stated during interviews that the use of the air packs would be required to implement the required actions of the control room evacuation procedure.

One area of the control room that was not specifically addressed by the operations procedures was the evacuation of the central alarm station (CAS). The CAS security officer, in the control room boundary, was not aware of any procedures for the evacuation of CAS. The issue of CAS evacuation had been discussed by the security supervisors, but there was no procedural guidance for the officers. This issue was addressed by the security manager who had guidance added to the security procedures.

c. Conclusions

The inspector concluded that procedures and training were properly implemented to address a situation requiring the evacuation of the control room.

V. Management Meetings

X1 Exit Meeting Summary

The radiation specialist inspector presented the inspection results to the members of licensee management at the conclusion of the inspection on July 3, 1997. The licensee acknowledged the findings presented.

The security inspector met with licensee representatives at the conclusion of the security inspection on August 14, 1997. At that time, the purpose and scope of the inspection were reviewed, and the preliminary findings were presented. The licensee acknowledged the preliminary inspection findings.

The senior resident inspector presented the inspection results to members of the licensee on September 16, 1997. The licensee acknowledged the findings presented.

X3 Management Meeting Summary

On August 20, 1997, the NRC held a management meeting with Maine Yankee to discuss the process and time frame for decommissioning activities. The meeting was held at the NRC Headquarters in Rockville, Maryland and was open to the public. On August 27, 1997, Maine Yankee submitted a Post Shutdown Decommissioning Activities Report which outlined their plans to proceed with the decon option for decommissioning.

PARTIAL LIST OF PERSONS CONTACTED

Licensee and Contractor Personnel

R. Blackmore, Plant Manager
G. Leitch, VP, Operations
R. Fraser, VP, Engineering
M. Meisner, VP, Nuclear Safety and Regulatory Affairs
P. Metivier, Security Director
P. Cunningham, Operations Security Supervisor
B. Plummer, Operations Manager
J. Sauger, Maintenance Manager
W. Odell, Technical Support Manager
E. Soule, Systems Engineering Manager
W. Ball, Assistant Manager, Operations Support
G. Zinke, Quality Programs Manager
W. Henries, Design Engineering Section Chief
M. Mattox, Design Engineering
C. Urquhart, Security Chief, American Protective Services (APS)
G. Nichols, Training Coordinator (APS)
J. Weast, Licensing Engineer
J. Frothingham, Manager Nuclear Safety Oversight
S. Alexander, Quality Assurance Supervisor
J. Hebert, Regulatory Affairs Manager

Other

P. Dostie, Maine, Nuclear Safety Inspector

INSPECTION PROCEDURES USED

IP 37551:	Onsite Engineering
IP 40500:	Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems
IP 60705:	Preparation for Refueling
IP 60710:	Refueling
IP 61726:	Surveillance Observation
IP 62707:	Maintenance Observation
IP 71707:	Plant Operations
IP 71750:	Plant Support
IP 81700:	Physical Security Program for Power Reactors
IP 92700:	Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities
IP 92901:	Followup - Operations
IP 92902:	Followup - Maintenance
IP 92903:	Followup - Engineering
IP 92904:	Followup - Plant Support
IP 93702:	Prompt Onsite Response to Events at Operating Power Reactors
TI2515/132:	Malevolent Use of Vehicles at Nuclear Power Plants

ITEMS OPENED, CLOSED, AND DISCUSSED

Items Opened:

50-309/97-07-01	URI	Failure to evaluate the installation of temporary fans in the protected switchgear room as required by 10 CFR 50.59.

Items Closed:

See list in section O8.1

50-309/96-12-08	VIO	Safeguards Information left unattended

Items Discussed:

none

LIST OF ACRONYMS USED

AA	Access Authorization
CAS	Central Alarm System
EDCR	Engineering Design Change Request
EHS/EP	Environmental Health Services/Emergency Preparedness
FFD	Fitness-for-Duty
FSAR	Final Safety Analysis Report
GPS	Global Positioning System
L&ES	Licensing and Engineering Support
LER	Licensee Event Report
MMP	Meteorological Monitoring Program
MYAPC	Maine Yankee Atomic Power Company
ODCM	Offsite Dose Calculation Manual
PCC	Primary Component Cooling
PORC	Plant Operating Review Committee
QA	Quality Assurance
QC	Quality Control
REMP	Radiological Environmental Monitoring Program
RP&C	Radiological Protection and Chemistry
SCC	Secondary Component Cooling
TLD	Thermoluminescent Dosimetry
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
USQ	Unreviewed Safety Question
VBS	Vehicle Barrier System
VIO	Violation
YAEL	Yankee Atomic Environmental Laboratory