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NSE 86-3-084 RWD, REV. 1

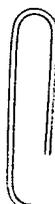
INTERIM RADWASTE STORAGE FACILITY

Description and Purpose

This Nuclear Safety Evaluation (NSE) evaluated the readiness of the Interim Radwaste Storage Facility (IRWSF), (located on-site near the South Access Gate) because access to the radwaste disposal facility in South Carolina is no longer available. This area is used to store low level radioactive waste in the form of resin, dry active waste and radioactive outage support materials for a period of up to five years.

Summary of Safety Evaluation

The facility is designed to provide adequate shielding to limit onsite doses within the IRWSF fence to less than 500 mrem/yr and doses at the site boundary are limited to less than 5 mrem/yr. This is achieved by having all waste containers and packages meet the applicable shipping and burial site requirements and all exterior surfaces of packages are constructed of non-combustible materials. The radiological conditions for the facility are monitored and controlled in accordance with Radiological & Environmental Services Department Procedures consistent with the ALARA (As Low As Reasonably Achievable) methodology of Regulatory Guides 8.8 and 8.10.

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MOD 86-3-138 IS, REV. 1

INTAKE STRUCTURE ENCLOSURE

Description and Purpose

The Intake Structure Enclosure project, Phase II, provided a building to protect the circulating water pumps, service water pumps and travelling screens from severe weather conditions. It is a single story structural steel framed building covering the Intake Structure floor area at the 15 foot elevation, west of the plant and adjacent to the Hudson River. This modification has been partially completed.

Summary of Safety Evaluation

The existing concrete structure has been evaluated for the additional loading imposed by the enclosure and found to be structurally adequate. The entire Intake Structure Enclosure was designed to withstand seismic loads due to an earthquake equivalent to the plant Safe Shutdown Earthquake (SSE). Additionally, the framed grating enclosure around the vital area of the service water pumps is designed to withstand impact loading due to tornado generated missiles. To facilitate installation of the enclosure, the service water pump screen bypass gate control cabinets had to be relocated. This in no way compromised the reliability of the bypass gate valve system.

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NSE 90-3-160 RM, REV. 0

REMOVAL OF RADIATION MONITORS
R28, R29, R30, R31, R35, R36, R39 AND R40

Description and Purpose

This Modification permanently removed Radiation Monitors R28, R29, R30, R31, R35, R36, R39 and R40 due to multiple failures and the inability to obtain replacement parts. The functions provided by Radiation Monitors R28, R29, R30 and R31 (detect radioiodine) have been replaced by signals from existing Radiation Monitoring Channels R27 and R14. The functions of R35, R36, R39 and R40, which are used for ALARA personnel protection, are now provided by the existing extended range area radiation monitors and the use of portable radiation monitoring equipment.

Summary of Safety Evaluation

The Modification does not reduce the margin of safety as defined in the basis for any Technical Specification because the monitoring functions previously provided by the radiation monitors mentioned above are either not required to meet any regulatory licensing or ALARA commitments or they are being provided by other existing radiation monitors.

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NSE 91-3-045 SEC, REV. 0

IP-2/IP-3 COMMON FENCE SECURITY MODIFICATIONS

Description and Purpose

This Modification changed Protected Area Perimeter Intrusion Detection System sensors and components along the IP-2 and IP-3 common fence line to make it an Administrative Common Fence. This change eliminated having both IP-2 and IP-3 provide security for the same fence.

The fence line has been modified to improve personnel accessibility to certain areas of the plant.

Summary of Safety Evaluation

The modifications made to the Security System are in compliance with the Security Plan and do not interfere with any safety related equipment. The specific modification information is restricted and contained within the modification safeguard vault.

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MOD 91-3-098 HR, REV. 0

HYDROGEN RECOMBINERS REPLACEMENT

Description and Purpose

The existing two flame type hydrogen recombiners were replaced with electric units to provide more reliable post accident vapor containment hydrogen control.

The new design simplifies the system, eliminates containment pipe penetration and related isolation valves, and relocates the recombiner control panel from a potentially high radiation area to the Control Room.

Summary of Safety Evaluation

The electric design is engineered to prevent post accident hydrogen concentrations from exceeding 3.0% of total volume. The flame type recombiner system criteria maximum was 2.0%. The concentration criteria increase is acceptable since it is below the Regulatory Guide 1.7 requirements.

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MOD 91-3-149 RCS, REV. 0

RELOAD CORE FOR CYCLE 9

Description and Purpose

The fuel reload established a low leakage core with a 24-month cycle life and addressed revised reactivity response, shutdown margin requirements, and burnable neutron absorber boron-10 content.

Summary of Safety Evaluation

The associated safety evaluation assured all associated design basis accidents in the FSAR were reviewed and analyzed and that no compromise to the fuel operating parameters and limitations existed.

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NSE 92-3-091 SI, REV. 2

REVISION OF FSAR SECTION 6.2, SAFETY INJECTION SYSTEM AND
SECTION 16.3 DEMONSTRATION OF ADEQUACY
OF SELECTED SEISMIC CLASS I ITEMS

Description and Purpose

The purpose of this evaluation was to ensure that an unreviewed safety question does not exist when FSAR Section 6.2, Safety Injection System (SIS) was revised, consistent with the Safety Injection System Design Basis Document (DBD) as issued on September 20, 1991. The revisions covered changes to the text, tables, and figures. The evaluation also covered revision of FSAR Section 16.3, Demonstration of Adequacy of Selected Seismic Class I Items, to make it consistent with the DBD for Seismic Piping and Supports as issued on March 17, 1992.

Summary of Safety Evaluation

Westinghouse prepared the DBD for the SIS and provided marked up copies of the appropriate paragraphs of the SIS FSAR Section. The changes were subsequently revised to allow for instrument uncertainty effects associated with the 24-month fuel cycle. The changes ensure that the FSAR is consistent with and accurately reflects the SI System DBD.

UE&C prepared the DBD for Seismic Piping and Supports and provided markups of the appropriate paragraphs of FSAR Section 16.3, Demonstration of Adequacy of Selected Seismic Class I Items.

After a detailed safety review and analysis for each suggested change it was concluded that the FSAR could be revised since the changes do not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

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MMP 92-3-102 SWS, REV. 2

REPLACEMENT OF SWN-95

Description and Purpose

This Minor Modification replaced a butt welded gate valve in the service water system, downstream of the Control Room Air Conditioner (CRAC) units, with a butterfly valve because a like for like replacement was not available. Two flanges and a small section of replacement pipe was also installed.

Summary of Safety Evaluation

The new valve performs the identical task as the old valve and does not create any scenarios different than those previously evaluated in the safety analysis report. The new butterfly valve increases flexibility in operating the Service Water System and facilitates easy repair and replacement by eliminating cutting and welding of an In-Service Inspection boundary.

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NSE 92-3-125 SWS, REV. 2

EVALUATION OF EMERGENCY DIESEL GENERATORS OPERABILITY
DURING REPAIR OF FCV-1176 AND FCV-1176A

Description and Purpose

This safety evaluation established the acceptability of Temporary Modifications 92-01870-01, 02 and 03 which provided alternate cooling water discharge paths from the diesel jacket water and lube oil heat exchangers during discharge valve repairs.

Summary of Safety Evaluation

It was determined that the alternate flow path was reliable and capable to provide necessary diesel engine cooling in the event of a power loss which would require, and initiate, diesel generator function.

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MMP 92-3-249 GSS, REV. 0

GLAND STEAM EXHAUSTER DRAIN LINE

Description and Purpose

The Main Turbine Generator gland steam exhauster fan experienced failures due to high motor vibration resultant from condensed moisture extrainment. A permanent 1" drain line was installed in the fan housing to release accumulated water.

Summary of Safety Evaluation

The drain line and related ported gate valve installation was determined to have no safety consequences but required a change to a drawing described in the FSAR.

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MOD 92-3-250 IA, REV. 1

INSTRUMENT AIR RECEIVER REPLACEMENT
MOISTURE DETECTOR UPGRADE AND STAINLESS STEEL PIPING

Description and Purpose

The existing carbon steel air receiver and related piping was replaced with stainless steel to mitigate corrosion particulate evolution and a nuclear service line moisture detector with Control Room (CR) alarm capability was installed to monitor Instrument Air dew point.

Summary of Safety Evaluation

The Safety Evaluation determined that plant safety was improved by reduction of corrosion products in the system and enhanced monitoring of the Instrument Air moisture content has increased system reliability.

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NSE 93-3-047 SI, REV. 0

POTENTIAL LIMIT SWITCH FAILURE AFFECTING MOTOR
OPERATED VALVES SI-856A THROUGH SI-856G

Description and Purpose

This NSE evaluates the effect limit switch failures have on throttle positions of the High Head Safety Injection (HHSI) branch line Motor Operated Valves (MOV's) SI-856B,C,E,G,H and J. The limit switches function as electro-mechanical stops, limiting the open position and throttling characteristics of the HHSI branch line throttle valves. A failure of the limit switch could cause the valve to fully open in violation of the system flow balance criteria, which had not been previously considered.

Summary of Safety Evaluation

The HHSI system, by design, can accommodate a single failure of a SI-856 limit switch and does not create any new accident worse than those already analyzed in the FSAR.

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MMP 93-03-057 BVS, REV. 0

SAMPLE INLET PIPING TO:
PLANT VENT GAS ACTIVITY MONITOR (R-14)
ADMIN BUILDING GAS ACTIVITY MONITOR (R-46)
RAMS BUILDING GAS ACTIVITY MONITOR (R-59)

Description and Purpose

The purpose of this Modification was to permanently install effluent sampling systems for the Plant Vent, Administration Building Vent, and Radioactive Machine Shop Building Vent. These systems are necessary to fulfill the sampling requirements of the Radiological and Environmental Technical Specifications (RETS). As a result of this modification, 92-03058-00 and 92-03059-00, which documented the installed temporary vent sampling systems, were cleared.

Summary of Safety Evaluation

The installation of the subject effluent sampling systems in no way impacts any safety-related systems. The design of the sampling systems is consistent with the existing radiation monitoring systems that they tie into and do not in any way degrade the existing systems. This Modification does not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

The Modification does not affect the operation of the existing building vent radiation monitoring equipment as described in FSAR Section 11.2.3.1. However, FSAR Fig. 6.4-2 was revised to show the effluent sampling system tap-off from the inlet to R-14.

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MMP 93-3-140 EHT, REV. 0

EHT33/CIRCUIT 32 THROUGH 36 UPGRADE

Description and Purpose

This Minor Modification removed boric acid heat trace circuits 32 through 36 and installed new heat trace circuits, (renamed 32A, 33A, 34A and 59). The new circuits are constantly energized to prevent precipitation on stagnant piping associated with boric acid transfer pump pressure indicators, filter pressure indicators and the boric acid storage tank sample lines.

Summary of Safety Evaluation

An evaluation has been completed to document the change in electrical loads associated with each circuit affected and verify that load/voltage coordination is maintained. This ensures that any fault associated with a heat trace circuit will trip the circuit breaker in the local heat trace panel before tripping a protective device upstream of the heat trace panel.

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NSE 93-3-142 SWS, REV. 1

EVALUATION OF TYING OR CROSS CONNECTING THE
SERVICE WATER SYSTEM (SWS) HEADERS AT COLD SHUTDOWN

Description and Purpose

This NSE evaluates the safety significance of allowing the essential and non-essential Service Water System (SWS) Headers to be tied together when in cold shutdown. This revision is based on Service Water System Licensing Position Paper Document No. 337-S-M-1, which was used to engineer the original SWS piping and components. In addition, a report was prepared which re-created the original licensing basis for the SWS.

Summary of Safety Evaluation

The report which recreated the original licensing basis for the SWS concluded that the SWS can be operated in a cross-tie configuration, in the Cold Shutdown Condition within the conditions of the operating license.

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NSE 93-3-157 MULT, REV. 0

REORGANIZATION OF CORPORATE (WPO) QA ORGANIZATION

Description and Purpose

This Evaluation ensures that no unreviewed safety questions exist in reorganizing the White Plains Office (WPO) Quality Assurance (QA) staff. The reorganization established three working groups (Procurement Quality, Audits and Assessments, and Quality Engineering) under one QA Manager, who reports to the QA Director, in lieu of two working groups under two QA Managers.

Summary of Safety Evaluation

The changes are administrative in nature and do not involve equipment, structures, systems, or components of any kind.

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MMP 93-3-169 CAR, REV. 0

LOW PRESSURE TURBINE EXHAUST VACUUM GAUGES & CONDENSER
BACK PRESSURE MONITORING INSTRUMENTATION

Description and Purpose

This Minor Modification permanently installed Temporary Modification No. 1345 which installed a condenser back pressure monitoring instrument for Condenser Hotwells 31A & B and 33A & B. This was made permanent by installing tubing supports, re-routing tubing in accordance with Construction Procedure (CES-8) and also providing a support assembly for securing the monitoring instrument. This Minor Modification also permanently installed Temporary Modification No. 92-3721-00 which installed Low Pressure Turbine exhaust pressure monitoring instrumentation for Low Pressure Turbines 31,32, and 33. This was made permanent by installing stainless steel tubing from the valves to the gauges in lieu of flexible tubing and also installed a tray/hold-down assembly to secure the Monitoring instrument.

Summary of Safety Evaluation

These permanent installations do not change the design basis of the Low Pressure Turbines or Condensers and therefore are not safety significant.

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MMP 93-3-172 CPD, REV. 0

CONDENSATE PUMP ORBISPHERE FLOW CHAMBERS

Description and Purpose

This Minor Modification qualifies Temporary Modification 93-01824-00 as permanent. This Temporary Modification involved the installation of the Orbisphere Oxygen Measurement System which permits local sampling of the dissolved oxygen content that is discharged from the Condensate Pump, to an accuracy of approximately 1%. When sampling is desired, a battery operated portable analyzer is connected to the Flow Chamber and the Oxygen level is displayed.

Summary of Safety Evaluation

This Modification is more efficient and provides a more accurate reading by allowing samples to be taken and tested without exposure to the atmosphere. The Orbisphere does not introduce any new control functions or adversely impact the operation or integrity of the system.

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MMP 93-3-181 EHT, REV. 0

BORIC ACID STORAGE TANK (BAST) 31 AND 32
OVERFLOW LINE HEAT TRACE UPGRADE

Description and Purpose

This Minor Modification replaced heat trace on the overflow lines (237 and 238) of Boric Acid Storage Tank (BAST) 31 and 32. The new heat trace circuits remain constantly energized to ensure that boric acid precipitation does not occur and that the BAST remains operable.

Summary of Safety Evaluation

The installation of this Modification ensures that lines 237 and 238 do not become blocked by boron crystallization and that the BAST will function as originally designed.

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NSE 93-3-183 WCCPPS, REV. 4

ADEQUACY OF THE BACKUP GAS SUPPLY TO THE WELD CHANNEL AND
CONTAINMENT PENETRATION PRESSURIZATION SYSTEM (WCCPPS)

Description and Purpose

This Nuclear Safety Evaluation justifies changing the design basis to allow the WCCPPS pressure to fall below the peak LOCA pressure as long as it remains above a post-LOCA containment pressure profile curve representing all break sizes.

Summary of Safety Evaluation

Based on the evaluation, the WCCPPS pressure will be maintained above the post-LOCA containment pressure profile curve, (at the beginning of the event, and above the containment pressure profile throughout the 24 hour design basis period), and therefore will maintain pressure above the postulated accident pressure.

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NSE 93-3-223 RPC

FULL-POWER OPERATION WITH TURBINE RUNBACK INOPERABLE

Description and Purpose

The purpose of this evaluation was to present the results of dropping a Rod Control Cluster Assembly (RCCA) at full power with turbine runback inoperable as analyzed by Westinghouse.

Summary of Safety Evaluation

The FSAR may be updated to allow full power operation with turbine runback inoperable since this condition does not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR. It has been demonstrated that all pertinent licensing basis acceptance criteria has been met.

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NSE 93-3-231, REV. 0

AUTO TRIPPING OF MCC-34 AND MCC-39 FOR
SAFEGUARDS INITIATION SCENARIO

Description and Purpose

This Modification allows the breakers, from the 480V safeguard buses (feeding MCC-34 and MCC-39), to trip automatically following a safeguards initiation scenario or after an undervoltage condition. Minor wiring changes were made to Switchgear No. 31, Unit 17, 18, 25 and 28 which are located in the Control Building on the 15'0" elevation.

Summary of Safety Evaluation

MCCs 34 and 39 are tripped by an undervoltage condition on the 480V busses and the analysis of the tripping of these same MCCs for a safeguards initiation signal is enveloped by the undervoltage tripping analysis.

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MMP 93-3-240 WCCPP, REV. 0

CONTAINMENT MAT WELD JOINT CHANNEL ZONE NO. 8 ABANDONMENT

Description and Purpose

The purpose of this Modification was to retire the Weld Channel and Containment Penetration Pressurization System (WCCPPS) Zone 8 for the vapor containment mat. This zone had to be retired as no reasonable repair processes or techniques could be utilized to repair the severely corroded portion of this zone. The scope of this modification was to retire Zone 8 in place by purging the zone with nitrogen to displace any oxygen and sealing and capping the supply line.

Summary of Safety Evaluation

The retirement of the Weld Channel Zone 8 in the vapor containment mat does not effect any analyzed accident scenario as no credit for this system is assumed in the FSAR. The retirement of this zone in the manner described will allow the remaining system to operate as it was designed and installed without being affected by the decommissioned zone. This retirement method also maintains the integrity of the containment liner and associated welds encased in the mat.

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MMP 93-3-248 SWS, REV. 0

SERVICE WATER SYSTEM BIO-BOX INSTALLATION ON
31 CONTROL ROOM AIR CONDITIONER UNIT INLET

Description and Purpose

This Minor Modification installed a bio-box on the Service Water System, downstream of the inlet drain to 31 Control Room Air Conditioner unit condenser, to monitor for the presence of zebra mussels.

Summary of Safety Evaluation

The bio-box is acceptable because it allows for early detection of zebra mussel infestation which could cause clogging and subsequent overheating of vital components. It also has been seismically supported to ensure it will not break free and become a hazard to any existing safety related equipment in the area.

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MMP 93-3-252 N₂, REV. 1

STEAM GENERATOR N₂ BLANKETING PIPING UPGRADE

Description and Purpose

This Minor Modification installed a 3/4" valve at a low point to permit drainage of condensate in the N₂ lines due to steam leakage and also changed the position of valves PCV-1319, PCV-1320 and SGN-31, SGN-32 from normally open to normally closed.

Summary of Safety Evaluation

The installation of the 3/4" valve does not create the possibility of an accident or malfunction different than those previously evaluated in the FSAR because the valve is located in a non-safety related section of the Nitrogen system and its failure will not negatively impact any safety system function. In addition, changing the valve position greatly reduces the potential for corrosion in the N₂ lines.

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NSE 93-3-257 480V, REV. 0

RELOCATION OF POWER FEEDS TO SWITCHGEAR ROOM EXHAUST FAN 34

Description and Purpose

This Modification relocated the power feed to Switchgear Room Exhaust Fan 34, from MCC-39 to MCC-36C, to ensure that the fan continues to operate, without any manual load management, following a design basis accident.

Summary of Safety Evaluation

This Modification provides more reliable power to Fan 34 by ensuring power is maintained or restarted automatically to MCC-36C via 480V Bus 2A by Emergency Diesel Generator 31 following a design basis accident and does not create any scenarios different than those already evaluated in the FSAR.

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NSE 93-3-258 480V, REV. 0

RELOCATION OF POWER FEEDS TO TURBINE HALL
CLOSED COOLING PUMPS 31 AND 32 AND NORMAL POWER FEED
TO THE STATION AUXILIARY TRANSFORMER AUXILIARIES

Description and Purpose

The purpose of this Modification was to alleviate the load management of Motor Control Centers (MCCs) powered from the 480V buses during peak accident loading scenarios with offsite power available. To accomplish this, the following loads were relocated: Turbine Hall Closed Cooling Pump 31 and 32, and Station Auxiliary Transformer Auxiliaries (cooling equipment). The new load configuration removed these loads from MCCs fed from 480V Buses 2A and 3A which require manual load management prior to reset during the peak accident loading scenarios. This Modification alleviates MCC load management by powering the above mentioned loads from power sources which remain energized during these scenarios.

Summary of Safety Evaluation

The subject equipment is non-safety related and does not have a direct or indirect role in reactor safety. Therefore, this Modification does not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR. This modification enhances the plant operators' ability to respond to an accident.

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MOD 93-3-262 SA, REV. 0

ADDITION OF AUTOMATIC START DIESEL DRIVEN
STATION AIR SUPPORT COMPRESSOR

Description and Purpose

This Modification added an automatic start, backup diesel-driven air compressor to support the existing air system during a loss of electrical power incident.

Summary of Safety Evaluation

This additional equipment is described in the FSAR since it expanded the station air system flow diagram and added a control room alarm annunciator. Its installation does not impact any safety related equipment. It is an improvement over the existing system and increases the possibility of the system to function as intended.

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NSE 93-03-263-480V, REV. 1

RELOCATION OF EXISTING POWER SOURCE
FOR CONTROL ROOM LIGHTING PANELS 39 AND 320

Description and Purpose

The purpose of this Modification was to transfer the power source for Control Room Lighting Panels 39 and 320 from Switchgear Lighting Bus 33 to MCC-36C. MCC-36C is continuously energized after a Design Basis Accident with offsite power available. Power is immediately restored to MCC-36C via the Emergency Diesel Generator 31 during a loss of offsite power. This ensures minimal interruption of lighting in the Control Room and Control Building since manual resetting is no longer required.

Summary of Safety Evaluation

The subject Modification does not increase the probability of an accident or malfunction of a different type than any evaluated previously in the FSAR. The feeders to the lighting panels are protected by fuses so that any failure associated with them will not jeopardize the safety related 480 Volt Electrical Distribution System. The modification design is bounded by the single failure of a loss of a single 480 volt bus.

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MMP 93-3-278 IA, REV. 0

NO. 33 INSTRUMENT AIR COMPRESSOR DRYER
CHECK VALVE INSTALLATIONDescription and Purpose

The purpose of this Modification was to install: 1) a tilt disc check valve downstream of 33 Instrument Air (IA) Compressor drying towers and after-filters to prevent reverse flow through any component of this portion of the IA System, and 2) a pressure tap to install instrumentation to sense low pressure in the Turbine Hall portion of the Instrument Air System.

Summary of Safety Evaluation

The addition of a tilting disc check valve improves the reliability and availability of the Instrument Air System by aiding the prevention of any leakage which may occur through 33 Instrument Air Compressor and Air Dryer components. The addition of a low pressure alarm alerts Operations personnel of low pressure in the Instrument Air portion of the Turbine Hall and allows prompt corrective action. This Modification improves the overall system performance and reliability and does not involve an unreviewed safety question.

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MMP 93-3-281 SI, REV. 0

SI-MOV-850 A&C LEAK-OFF LINE CAP INSTALLATION

Description and Purpose

The purpose of this Modification was to install a threaded 1/2" stainless steel cap on the packing gland leak-off line on valves SI-MOV-850 A&C.

Summary of Safety Evaluation

The installation of this Modification prevents any further leakage from the valve leak-off connection. Failure of the cap would not cause an uncontrolled release of a significant amount of radioactive fluid since the new packing configuration provides full stem sealing below the leak-off connection. This Modification does not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR. FSAR Fig. 6.2-1A was revised to show the subject valves as possessing capped leak-off connections.

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NSE 93-3-288 SI, REV. 1

OPERABILITY OF RHR SYSTEM MOTOR-OPERATED VALVES
SI-MOV-746, 747, 899A, AND 899BDescription and Purpose

The purpose of this evaluation was to provide assurance that Residual Heat Removal (RHR) System, Motor Operated Valves SI-MOV-746, SI-MOV-747, SI-MOV-899A and SI-MOV-899B will remain operable during a faulted load combination (dead weight + pressure + DBE + thrust) for the remaining life of the plant. Revision 0 of this NSE closed out RAS 93-03-276 and provided for an evaluation of operability for the subject valves through the next refueling outage. Revision 1 of this NSE provided updated information on the overthrust issue resolved by Design Change DC 94-03-050 SI.

Summary of Safety Evaluation

A detailed analysis on the stresses in the valve internals due to the revised thrusts concluded that the subject valves will remain operable through the next refueling outage with the number of stroking cycles not to exceed 25. A Design Change was performed to prevent these valves from operating beyond their thrust limits. The Design Change DC 93-03-050 SI results in these valves being operable per Technical Specification requirements for the life of the plant and eliminates the limit of 25 cycles of operation previously imposed. This procedure does not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

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MMP 93-3-289 PRM, REV. 0

RETIREMENT OF R45, R47 AND R50
AND REWIRING OF CR CP-4 CATEGORY ALARM

Description and Purpose

The Administration Building vent particulate (R45) and iodine activity (R47) and the Laundry Waste Tank discharge (R50) monitors were retired and those inputs to the radiation monitoring control panel CP-4 were removed.

Summary of Safety Evaluation

The conclusion of the safety evaluation was that R45 and R47 monitoring was already accomplished by the Noble Gas Radiation Monitor (R46) and composite air samplers. R50 provided unnecessary monitoring since the laundry tank effluent is directed to the Waste Holdup Tanks where monitoring is accomplished by R18.

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MMP 93-3-308 SWS, REV. 0

SERVICE WATER SYSTEM BACKUP HEADER CHECK VALVE
TEST CONNECTION

Description and Purpose

This Modification installed a 1" test connection, upstream of check valves SWN-100-3 and SWN-100-4, on the Service Water System backup header. The test connection consisted of a 1" studding outlet welded to the 14" pipe and a 150 pound ANSI Class flanged plastic-lined diaphragm valve bolted to the studding outlet.

Summary of Safety Evaluation

The new components are located in a non-safety related section of the Service Water System backup header and their failure will not adversely impact any safety system function.

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MMP 93-3-339 WCCPP, REV. 0

REGULATOR SUPPLY LINE REROUTE TO
PS-PCV-1193, -1195, -1197, -1199

Description and Purpose

This Modification rerouted the pneumatic supply lines for the pressure control valves which function to provide backup nitrogen to the Weld Channel and Containment Penetration Pressurization (WCCPP) system. As-built configuration of the piping was such that loss of instrument or station air during an accident scenario may have caused the pressure control valves to remain shut, isolating WCCPP backup nitrogen.

Summary of Safety Evaluation

The evaluation established that the modification enhanced the safety function of the associated equipment and did not create any scenarios different than those previously evaluated in the FSAR.

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MMP 93-3-363 COND, REV. 1

CST LEVEL SWITCH REPLACEMENT

Description and Purpose

Level indicating switches (LIC-1102S and LIC-1455S), that control isolation valves (LCV-1158-1 and LCV-1158-2) and provide a low level alarm to the CR, had a potential for a setpoint shift of $\pm 10\%$ that could result from a seismic event. This Modification used the existing level indication instrument loops (L-1128 and L-1128A) instead of the switches.

One Dual Alarm Module and two auxiliary relays were installed on Channels I and IV and their new cables were routed using the existing raceway. The original level indicating switches and their associated wires were disconnected and retired in place.

Summary of Safety Evaluation

By using the existing level indication loop to perform the alarm and control function, sufficient margin can be achieved between the setpoints and the normal operating region so that nuisance alarms and/or inadvertent actuation of the Condensate Storage Tank isolation valves will be avoided. These components are not safety significant and provide the same function as the existing switches.

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NSE 93-3-404 RCS, REV. 0

EFFECT OF ALUMINUM REACTOR COOLANT PUMP MOTOR PARTS
ON POST-LOCA ANALYSES

Description and Purpose

Westinghouse Nuclear Safety Advisory Letter, NSAL 92-011, identified Indian Point 3 as one of several plants whose original Reactor Coolant Pump motors contained significant amounts of aluminum that were not accounted for previously in the FSAR. This NSE evaluated the effects of the aluminum parts on post-LOCA hydrogen production and corrosion product solubility.

Summary of Safety Evaluation

The FSAR section 6D-5.1 cites experiments that measured the corrosion resistance of various aluminum alloys. That report concluded that even though the solution contained large amounts of aluminum hydroxide (up to 5 times the concentration expected at Indian Point 3), it had no effect on flow through spray nozzles, or other equipment.

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MOD 93-3-433 FRW, REV. 0

CONTROL BUILDING ELEVATION 15'-0" FLOODING

Description and Purpose

Six seismic supports were added to the Fire Protection transformer deluge valve station piping to ensure pressure boundary integrity during a postulated seismic event.

Summary of Safety Evaluation

The support addition resolved the concern that a seismic event induced rupture of Fire Protection piping could flood the 480V emergency busses cell and compromise safe shutdown capability.

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MMP 94-3-006 480V, REV. 0

480V FEEDER TO TRAILER LOAD CENTER

Description and Purpose

This Modification upgraded existing power cable (from 350 MCM to 500 MCM) and fuse protection for two load center transformers which are powered from a 480V safeguards bus, and provided power to the trailer facilities located in the lower parking lot at Indian Point 3. The breaker trip setpoint was reset for protection of the larger size feeder.

Summary of Safety Evaluation

Upgrading the cable and fuses provides the capability to handle the full load of both transformers. The protection of the safeguards bus is ensured by the trip setpoint established for the supply breaker. This Modification does not involve any safety related equipment and does not affect any equipment whose malfunction was not previously evaluated in the FSAR.

1994 ANNUAL REPORT

NSE 94-3-011 WGA, REV. 0

REPLACEMENT OF WASTE GAS ANALYZER

Description and Purpose

The Waste Gas Oxygen and Hydrogen Analyzers (located in the PAB in the sample room on elevation 55') were replaced with an indicating instrument with a built-in interfaces for oxygen, hydrogen and a pressure sensor. This Modification was made because the old system was out of service and the manufacturer no longer supplied replacement parts for its repair.

Summary of Safety Evaluation

The new analyzers perform the same function as the previous system and do not create any scenarios different than those previously evaluated in the FSAR.

1994 ANNUAL REPORT

MMP 94-3-016 IB, REV. 0

INSTALLATION OF 3RD AND 5TH HARMONIC FILTERS
ON INSTRUMENT BUSES 31, 32 & 33

Description and Purpose

This Minor Modification installed passive filters on instrument buses 31, 32 and 33 that are designed to remove the 3rd and 5th order harmonics. This is to ensure that Total Harmonic Distortion (THD) for voltage is within plant design basis and equipment specifications.

Summary of Safety Evaluation

The filters aid in maintaining the calibration of instrumentation powered from the instrument buses and maintain the instrument bus voltage within design parameters.

1994 ANNUAL REPORT

NSE 94-3-020 CCW, REV. 1

EVALUATION OF THE SPECIAL EVOLUTION FOR THE INTRUSIVE WORK
IN THE COMPONENT COOLING WATER/RESIDUAL HEAT REMOVAL
WINDOW DURING THE PIP OUTAGE

Description and Purpose

The purpose of this NSE was to provide an evaluation of the special evolution required for intrusive work that was performed within the Component Cooling Water (CCW)/Residual Heat Removal (RHR) window during the outage. The special evolution was governed by Temporary Operating Procedure TOP-91, Rev.2, "Administrative Guidance for Plant Operations with One RHR Loop Removed from Service." This evaluation addressed the possible uncoupling of the primary and secondary side of the steam generators due to gas accumulating in the U-tubes.

Summary of Safety Evaluation

The evolution, controlled by TOP-91, ensured that the performance of work was accomplished in a safe, conservative manner presenting no challenge to maintenance of the plant in a cold shutdown condition. Work included the replacement of AC-MOV-784 and 786, root valve AC-763B, the removal and replacement of relief valve AC-819B, maintenance work on SI-MOV-1802A and 1802B, flange work associated with SI-HCV-640, and the refurbishment of AC-302. The special evolution and TOP did not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

1994 ANNUAL REPORT

NSE 94-3-025 SWS, REV. 1

EVALUATION OF TEMPORARY REMOVAL OF CR VENTILATION SYSTEM

Description and Purpose

The purpose of this evaluation was to provide justification for the removal from service of the Control Room (CR) ventilation system for repair services and modifications, particularly for MMP 93-3-335 CB (CR Heating Ventilation and Air Conditioning (HVAC) Damper Actuators Seismic Mounting Upgrade) and maintenance repair of leaky ducts. This evaluation also addressed the acceptability of Temporary Operating Procedure (TOP) No. 94 to allow for the securing of the ventilation system.

Summary of Safety Evaluation

Although the FSAR section 9.9 states the CR ventilation system must maintain its functional capacity at all times to maintain temperature limits in the CR, the subject TOP to allow the temporary shutdown of the CR ventilation system to perform maintenance and repairs was acceptable. The TOP contained adequate guidelines and compensatory actions specified to ensure that CR temperature was kept within the specified range for equipment operability. Operation without the CR ventilation in full service did not adversely affect continued safe operation of the plant and did not represent an unreviewed safety question. Since the CR ventilation system was shut down for a short period of time, during the winter, while essential maintenance was performed, it did not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

1994 ANNUAL REPORT

MMP 94-3-035 SI, REV. 0

REMOVAL OF 125VDC RECTIFIER FOR CO₂ SYSTEM

Description and Purpose

This Minor Modification permanently removed the 125VDC rectifier and associated cable as the power supply for the Control Building CO₂ system via distribution panel DP-503. The rectifier, which was powered from MCC 39, was replaced with a power supply from the 125VDC Power Panel 31, which is in the same channel as MCC 39. Circuit breaker 13 (100A) was switched with circuit breaker 4 (30A) and a Category I (Cat-I) Fusible Safety Switch was installed to provide electrical isolation between Cat-I DC Power Panel 31 and Cat-M Distribution Panel DP-503.

Summary of Safety Evaluation

The removal of the rectifier and the re-powering of DP-503 eliminated a recurring problem with the previous power supply and assures a reliable source of power to the CO₂ fire protection panels and does not create the possibility of an accident or malfunction of a different type than evaluated previously in the FSAR. Figure 8.2-6 of the FSAR has been updated to reflect these changes.

1994 ANNUAL REPORT

NSE 94-3-039, REV. 1

SORRENTO RADIATION MONITORS STACK OVERFLOW EVALUATION

Description and Purpose

This NSE verifies the acceptability of using special instruction procedures IC-SI-30 and IC-SI-36 to verify that the Sorrento Radiation Monitors are not locked-up due to stack overflow/floating point error. Sorrento Electronics determined that memory locations used for memory stack data can overwrite a present stack size limit. The overwritten memory locations can preclude calls to lower priority level tasks such as alarms and indication to the operator thus, locking-up the system.

Summary of Safety Evaluation

IC-SI-30 was performed once every shift to establish operability of R-27, 11/12, 15, 18, 19, 62 and 59 and was canceled when firmware sets were replaced on 2/10/95. IC-SI-36 continues to be performed every two weeks. These tests confirm operability of existing equipment and do not affect any safety function previously evaluated.

1994 ANNUAL REPORT

MMP 94-3-055 CBHV, REV. 0

CONTROL BUILDING 15' AND 33' ELEVATION
AMBIENT TEMPERATURE ALARM

Description and Purpose

This Modification installed a temperature switch at the 15' elevation of the Control Building, two resistance temperature detectors (one on the 15' elevation and one on the 33' elevation), one temperature recorder in Control Room (CR) panel SLF, and three new cables from the CR supervisory panels to the lower elevations of the Control Building. The purpose of this modification was to provide the Control Room with an alarm upon detection of a high ambient temperature condition in the Control Building.

Summary of Safety Evaluation

This Modification allows the operators to monitor and trend the room temperatures at both elevations and provides an alarm before temperature conditions reach the maximum operating conditions of 104°F for the 15' elevation and 101°F for the 33' elevation. The installation of this equipment is an improvement and does not create any scenarios different than those evaluated previously in the FSAR.

1994 ANNUAL REPORT

CLAS 94-3-058 HPC, REV. 0

RECLASSIFY HOT PENETRATION FLEX CONNECTORS, BUTTERFLY VALVES
INLET FILTERS FOR BLOWER 33 AND 34 AND SILENCERS

Description and Purpose

The purpose of this classification was to reclassify the Hot Penetration Cooling System (HPCS) flexible connectors, inlet filters for the blowers, silencers, butterfly valves, and non-vibrating pressure relief valves from Category I to Category M; and the discharge and suction pressure indicators, and the return line drain butterfly valves from Category I to Non-Category I.

Summary of Safety Evaluation

This reclassification does not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR. The hot penetration components including the flex connectors, filters, butterfly valves and silencers are not directly related to reactor operation and isolation of the reactor and are therefore not required to be classified as Category I. The heat transfer properties of the hottest penetrations, the main steam line penetrations, are such that 507°F steam results in a concrete temperature of less than 200°F. To lose significant structural properties, concrete must be held continuously at 500 to 600°F. Analysis indicated that in the unlikely event that all cooling air is lost to the main steam penetration, the surrounding concrete would reach a maximum temperature of 200°F in approximately 100 hours and 280°F in approximately 1000 hours. Therefore, this reclassification does not involve an unreviewed safety question.

1994 ANNUAL REPORT

NSE 94-3-059 HPC, REV. O

SEISMIC DESIGN CRITERIA FOR THE HOT PENETRATION
COOLING SYSTEM (HPCS)

Description and Purpose

This Safety Evaluation reviewed the potential safety impact of reclassifying the Hot Penetration Cooling System (HPCS) and revised the FSAR Update Section 16.1.2 Seismic Design Classifications for the Hot Penetration Cooling System (HPCS) from Seismic Class I to Seismic Class I and Seismic Class III, which was justified in CLAS 94-3-058 HPC. Specifically, the HPCS blowers, piping and components, the air supply duct and piping to the Main Steam System (MSS) and Feedwater System (FWS) penetration air cooling up to the first penetration support has been reclassified as Seismic Class III. The hot penetration heat exchanger will remain designated as Seismic Class I.

Summary of Safety Evaluation

The reclassification of the HPCS system does not create any unreviewed safety concerns and conforms to the requirements in section 16.1.1 (Definition of Seismic Design Classifications) of the FSAR.

1994 ANNUAL REPORT

MMP 94-3-067 DCPWR, REV. 0

DC POWER PANELS REDUNDANT TIE BREAKERS

Description and Purpose

A second tie breaker was installed in series in the existing bus ties of 125V DC Power Panels 31 and 32 and Panels 33 and 34, eliminating inadvertent cross connect potential due to a single operator error.

Summary of Safety Evaluation

Prior to this modification there was a concern of a potential to violate single failure criteria between two DC channels due to inadvertent closure of a single tie-breaker. A subsequent failure in one channel could have resulted in the loss of both DC channels.

The addition of a second breaker in the bus-tie between 125V DC Power Panels 31 and 32 and between 125V DC Power Panels 33 and 34 eliminates the single failure concern between the two DC power channels. The new bus-tie configuration requires that a tie breaker in both DC power panels are manually closed to connect the two DC buses together. This bus-tie circuit breaker redundancy eliminates the possibility of a single failure causing channel separation to be violated.

1994 ANNUAL REPORT

CLAS 94-3-075 IB, REV. 0

HARMONIC FILTERS FOR INSTRUMENT BUSES 31, 32 AND 33

Description and Purpose

The purpose of this Classification was to classify the Harmonic Filters that were installed by MMP 94-3-016 IB for Instrument Buses 31, 32 and 33 as Cat-I, Safety Related, Seismic Class I.

Summary of Safety Evaluation

The filters are classified Seismic Class I, Cat-I, as defined by FSAR section 16.1 and are safety related as required for Appendix R safe shutdown.

1994 ANNUAL REPORT

NSE 94-3-091 STR, REV. 0

NON-CONFORMING PIPING SUPPORTS DURING FILL AND VENT

Description and Purpose

This evaluation justified fill and venting of the Reactor Coolant System (RCS) with small bore pipe support deficiencies on 3/4" 32 RCP seal return bypass line (support no. CH-H&R-76-1-U) and on the 2" 31 RCP seal return line (support no. CH-H&R-75-1-U), as documented in DER-94-221 and 222, as well as a number of support deviations found during extent of condition walkdowns as documented in DER-94-0231. These deficiencies were discovered during a sampling of 90 safety related pipe lines that are required for fill and vent.

Summary of Safety Evaluation

Based on calculations performed by UE&C (as referenced in the NSE), the pipe supports identified were found to be within the design stress limits stated in the FSAR.

1994 ANNUAL REPORT

NSE 94-3-107 WGA, REV. 0

EVALUATION OF TEMPORARY REMOVAL OF PRT GAS SAMPLE
REGULATOR GA-PCV-499

Description and Purpose

This Safety Evaluation justifies the installation of Temporary Modification 93-02540-02 which enables sampling of the Pressurizer Relief Tank (PRT). The Temporary Modification removed sampling regulator GA-PCV-499 which was restricting flow, and replaced it with a straight run of 3/8" stainless steel tubing.

A revision to Standard Operating Procedure SOP-SS-3 was made to add steps to allow for sampling and a precaution and limitation was added to limit PRT pressure to less than 8 psig prior to sampling which will prevent the downstream relief valve, located in the sample room, from lifting.

Summary of Safety Evaluation

The stainless steel tubing pressure rating is equivalent to the original tubing, and maintaining pressure less than 8 psig prevents lifting of the relief valve and also eliminates leakage concerns related to the vacuum sample pump seals during sampling.

1994 ANNUAL REPORT

NSE 94-3-117 FSB, REV. 0

EVALUATION FOR REMOVING FUEL STORAGE BUILDING DOOR SEALS'
FUNCTION AS PART OF OPERABILITY FOR RADIATION MONITOR R-5

Description and Purpose

The purpose of this NSE was to provide an evaluation for the removal of the Fuel Storage Building (FSB) door seals' as part of the operability requirements for Radiation Monitor R-5.

Summary of Safety Evaluation

This Safety Evaluation analyzed the potential safety impact on the FSB without operation of the inflatable door seal function. In the analyses for offsite dose release calculations, no credit is taken for the inflatable seals. Measurement demonstrated a negative pressure in the FSB with the seals deflated. The inflatable door seals feature is not required in the event of a refueling accident and is therefore not required for operability of Radiation Monitor R-5. This does not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

1994 ANNUAL REPORT

NSE 94-3-124 ED

EVALUATION OF CABLE CHANNELIZATION DEFICIENCIES

Description and Purpose

This NSE addressed the safety significance of eleven channelization anomalies, between the configuration of the plant and the FSAR, that were identified during walkdowns conducted under ENG's 527A, B and C.

Summary of Safety Evaluation

One of the eleven anomalies addressed was found to jeopardize the low pressure steam dump system. It has been reported in LER 93-025 and has been modified to conform to IP3 design criteria. None of the other anomalies affect any safety related systems in their evaluated configuration.

1994 ANNUAL REPORT

NSE 94-3-125 CVCS, REV. 1

ANALYSIS OF REACTIVITY HOLD-DOWN REQUIREMENTS

Description and Purpose

The NSE revised portions of the FSAR which described 75 gpm rated flow of boric acid delivery to the shutdown core by means of the Chemical Volume and Control System (CVCS) charging pumps and boric acid transfer pumps.

Summary of Safety Evaluation

The 75 gpm rated flow value is associated with the emergency boration flow path driven by one boric acid transfer pump operating in high speed mode. In reality, the boric acid flow path to charging pump suction delivers less, due to piping and filter head losses. However, the required delivery of 132 ppm/hr to borate to hot, then cold, shutdown can be accomplished by an injection rate of 11.56 gpm.

1994 ANNUAL REPORT

MMP 94-3-132 EDG, REV. 1

EDG FUEL OIL TANK LEVEL
INDICATOR LI-1133, LI-1134 AND LI-1135 REPLACEMENT

Description and Purpose

This Minor Modification replaced hydraulic level indicators (LI-1133, LI-1134 and LI-1135) and level gauge tank assemblies on the Emergency Diesel Generator (EDG) underground fuel oil storage tanks (31, 32 and 33) with hydrostatic head pressure measurement devices.

Summary of Safety Evaluation

The new level indicators provide a more accurate level measurement by reducing the level of uncertainty from 385 gallons to 50 gallons. Since there will be less instrument uncertainties, the amount of fuel required was lowered, via Tech Spec 3.7, from 7,056 to 6,721 gallons. These fuel level indicators do not perform a safety function and a level measurement may be obtained via a dipstick if they were to fail.

1994 ANNUAL REPORT

MMP 94-3-141 SWS, REV. 0

INSTALLATION OF BACK-UP SERVICE WATER SYSTEM
PUMP CHLORINATION VALVES

Description and Purpose

This Modification installed permanent valves and fittings in back-up Service Water Pumps 37, 38 and 39 discharge lines to facilitate chlorination to prevent bio-fouling of system components.

Summary of Safety Evaluation

The Safety Evaluation recognized that the chlorination capability enhanced the function of the system by mitigating aquatic growth development. The addition of valves and fittings required amendment of FSAR drawing #90-23671.

1994 ANNUAL REPORT

NSE 94-3-154 CCW, REV. 0

EVALUATION OF TEMPORARY MODIFICATION 94-3-198-02
FOR SEALING OF CCW PIPING LEAKS

Description and Purpose

This Safety Evaluation considered the stopgap measure applied to seal two pinhole leaks on an elbow in the component cooling discharge line of the spent fuel pool heat exchanger.

Summary of Safety Evaluation

A formal evaluation in accordance with NRC Generic Letter 90-05 was conducted and determined the wall thinning to be local to the leakage area. The stopgap measure mitigated the leakage without compromising the integrity of the pipe. Section XI permanent repair was subsequently effected.

1994 ANNUAL REPORT

NSE 94-3-170 CCW, REV. 0

EVALUATION OF TEMPORARY MODIFICATION 94-03343-00 FOR THE REMOVAL OF THE LOW PRESSURE AUTO START AND TEMPORARY MODIFICATION 94-03344-00 TO CLEAR THE CR COMMON ALARM FOR RHR PUMP COOLING LOW FLOW

Description and Purpose

The purpose of this evaluation was to support the installation of two Temporary Modifications during the outage. Temporary Modification 94-03343-00, removed the low pressure auto start signal to the standby CCW pump while PI-600B was isolated to allow various intrusive jobs on the 32 CCW header. Temporary Modification 94-03344-00 removed the signal from the "32 RHR Cooling Low Flow," which feeds the common control room alarm. This allowed operators to have indication in case CCW flow was lost to the 31 RHR pump.

Summary of Safety Evaluation

The subject Temporary Modifications were installed since they did not affect safe operation of the plant. The Temporary Modifications provided pump protection during isolation of the 32 CCW header. This precluded possible pump damage to either the standby CCW pump or the 31 RHR pump. It was concluded that these Temporary Modifications did not involve an unreviewed safety question.

1994 ANNUAL REPORT

NSE 94-3-173, 480V

480V AGASTAT INTERLOCK TIMER RELAY SETPOINTS

Description and Purpose

This evaluation justified Agastat setpoint and tolerance changes that will preclude simultaneous breaker closures for the Emergency Diesel Generator's (EDG's) and 480V Bus 5A, 6A, 2A, & 3A. Setpoint changes consist of minor setpoint time changes (SWP31 & 34, SWP33 & 36, CC32, CC33, CS31(2), and CS32(2)) and revised As-Left-Tolerance values to the larger of ± 1 second or $\pm 5\%$ of setting.

Summary of Safety Evaluation

The maximum automatic loading of the 480V busses is not changed, only the design time of equipment for the events, as bounded by the analyses. The revised times are within the assumed analysis values.

1994 ANNUAL REPORT

NSE 94-3-191, REV. 0

INDIAN POINT 3 QUALITY ASSURANCE REORGANIZATION

Description and Purpose

This evaluation ensures that no unreviewed safety questions exist in reorganizing the IP-3 Quality Assurance (QA) staff. The old structure had a Quality Assessment Supervisor and a Quality Services supervisor reporting to the QA Manager. The new organization has three leads (QA Procurement, QA Special Projects, and QA Operations) and two Supervisors (QA Maintenance and QA Support Services) reporting to the QA Manager.

Summary of Safety Evaluation

The changes are administrative in nature and do not involve equipment, structures, systems, or components of any kind. The distribution of responsibilities has changed however, the overall responsibilities of the QA department remain the same.

1994 ANNUAL REPORT

NSE 94-3-195 CCW, REV. 0

EVALUATION OF THE SPECIAL EVOLUTION FOR THE INTRUSIVE WORK
IN THE CCW/SFPC WINDOW DURING THE RS94 OUTAGE

Description and Purpose

The purpose of this NSE was to evaluate the special evolution required for the intrusive work to be performed within the Component Cooling Water (CCW) / Spent Fuel Pod Cooling (SFPC) window during the RS94 Outage. The special evolution was governed by Temporary Operating Procedure (TOP) 101. Work performed included disassembly of orifice FE-603 for inspection, replacement of valve AC-803, replacement of a blind flange in the discharge header for the spent fuel pit pumps, and replacement of temperature indicator TI-604.

Summary of Safety Evaluation

The evolution, controlled by TOP-101, ensured that the performance of the work described above was accomplished in a safe, conservative manner which presented no challenge to maintenance of the Spent Fuel Pool below the required 200 degrees. The special evolution and TOP did not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

1994 ANNUAL REPORT

NSE 94-3-213 STR, REV. 0

INSTALLATION OF A DOOR IN PLACE OF A SHIELD WALL FOR THE
NON-REGENERATIVE HEAT EXCHANGER CELL

Description and Purpose

This NSE evaluated the radiological consequences of replacing a section of concrete in the Auxiliary Shield wall with a steel door. The section of wall had to be demolished to allow replacement of a leaking gasket on the end bell of the Non Regenerative Heat Exchanger.

Summary of Safety Evaluation

The installation of a steel door in lieu of reconstructing the wall poses no safety concerns because the area still qualifies as a Zone 1 area (an area with a dose rate of < 100 mrem/hr 30 minutes after a Loss of Coolant Accident). As such, no additional controls are mandated by either the FSAR, the CFR, or Technical Specifications.

1994 ANNUAL REPORT

NSE 94-3-238 SWS, REV. 0

EVALUATION OF 31 CONTROL ROOM AIR CONDITIONING
TEMPORARY DISCHARGE PIPING

Description and Purpose

The purpose of this evaluation was to verify the acceptability of temporary discharge piping for 31 Control Room (CR) Air Conditioning (AC) unit during the period of repair and testing of the normal discharge piping and valves. The repairs would otherwise require the isolation of the Service Water System to both CRAC units. A Temporary Modification was installed to re-route the discharge from the outlet of the temperature control valves for the 31 CRAC unit condensers to a drain on the 15' elevation of the Control Building. This provided continuous Service Water flow to each condenser in the 31 CRAC unit.

Summary of Safety Evaluation

Although the CRAC units are not required to be operable by the Technical Specifications. The plant was in a cold shutdown condition when this temporary modification was done. The Temporary Modification allowed one train to remain available during valve replacement and testing by the Technical Specifications. The modification does not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

1994 ANNUAL REPORT

NSE 94-3-248, REV. 0

MCM-6B REVISION 2, REMOVAL OF SAFETY-RELATED FUNCTION (SRF4)
FROM THE LIST OF FUNCTIONS FOR CATEGORY I SYSTEMS,
STRUCTURES, AND COMPONENTS (SSC)

Description and Purpose

This Safety Evaluation justified the removal of Safety-Related Function (SRF4) from MCM-6B, Rev. 2. SRF4 was part of the list of functions used to classify SSCs as Category I. SRF4 stated that SSCs shall be classified as Cat-I if they "Contain or may contain radioactive material and whose failure would result in conservatively calculated potential site boundary doses which are more than 0.5 rem to the whole body or its dose equivalent to any part of the body."

Summary of Safety Evaluation

SRF4 is a requirement used to classify SSCs as Seismic Design Class II. In accordance with the FSAR section 16.1.7, Seismic Class II SSCs are classified as Cat-I therefore SRF4 is redundant and can be deleted.

1994 ANNUAL REPORT

NSE 94-3-265 STR, REV. 0

NON-CONFORMANCE OF SMALL BORE PIPING SUPPORTS

Description and Purpose

This Safety Evaluation ensures that small bore piping support deficiencies, that were documented in DER-94-231, do not pose a threat to the safety of the operation of the plant.

Summary of Safety Evaluation

Sampling of lines was performed (in accordance with TSP-047) and, all of the lines sampled, regardless of the support deviations or deficiencies, were within their design limits as identified in USAS B31.1 1967 Power Piping Code.

1994 ANNUAL REPORT

NSE 94-3-284, REV. 0

ORGANIZATION CHANGES IN NEW YORK POWER AUTHORITY
MANAGEMENT STRUCTURE AND
THE NUCLEAR GENERATION DEPARTMENT

Description and Purpose

The purpose of this evaluation was to describe and evaluate proposed changes to the overall management structure of the New York Power Authority and the management structure of the Nuclear Generation Department as described in the FSAR. The organization changes involved a change to the Technical Specifications. The position title "Executive Vice President - Nuclear Generation," was changed to "Executive Vice President and Chief Nuclear Officer." The reporting relationship for the Resident Managers was deleted. Consistent with the Standard Technical Specifications and previous amendments to the Indian Point 3 Technical Specifications, the functional descriptions of the position responsibilities and reporting relationships are maintained in the Updated FSAR, not in the technical specifications.

Summary of Safety Evaluation

The organization changes described in the safety evaluation do not constitute an unreviewed safety question since they do not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated in the FSAR.

1994 ANNUAL REPORT

NSE 94-3-301 PS, REV. 0

EVALUATION OF PASS ANALYSIS UPGRADES

Description and Purpose

The purpose of this evaluation was to provide assurance that the Post Accident Sampling System (PASS) analysis capabilities, as committed to the NRC and implemented in plant configuration and procedures, will not impact plant safety requirements. The evaluation provided the basis for revising the FSAR to be consistent with the upgraded PASS.

Summary of Safety Evaluation

The PASS analysis capabilities, as committed to the NRC and implemented in upgraded plant configuration and revised chemistry procedures, do not impact plant safety requirements. They do not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR. In addition, existing administrative controls will assure that the exposure to radiation during the PASS analysis will not exceed the limits of NUREG 0737. The FSAR section 9.4.2.1 was revised to reflect the evaluated changes.

1994 ANNUAL REPORT

NSE 94-3-312 480V, REV. 3

OPERATION OF THE SERVICE WATER SYSTEM DURING REPAIRS
TO THE SERVICE WATER CABLES CONDUIT AND DUCT BANK

Description and Purpose

This Safety Evaluation addressed safe, reliable operation of the service water system using alternate power sources during repair of the underground normal power cable duct bank.

Summary of Safety Evaluation

The evaluation determined that, with the operable service water pumps powered from normal electrical supplies, the existence of procedures for contingency actions and the availability of alternate power supplied, the functional ability of the service water system was adequate to support required heat removal requirements. The various alternate power supplies were described by Temporary Modifications 93-09677-14, 15, 16, 18 and 47.

1994 ANNUAL REPORT

NSE 94-3-324 WCCPPS, REV. 0

EVALUATION FOR NOT REQUIRING RESTRICTING ORIFICES
IN THE WCCPPS PRESSURIZATION LINES TO THE
CONTAINMENT AND RELIEF PENETRATIONS

Description and Purpose

This Safety Evaluation determined the safety significance (and justified revision to the Final Safety Analysis Report (FSAR)) of a conflict in the FSAR between section 6.6.2 which shows flow restricting orifices in the WCCPPS lines to the containment purge and pressure relief penetration ducts and figure 6.6.1 which does not.

Summary of Safety Evaluation

The absence of restriction orifices in the WCCPPS lines to the containment purge and pressure relief penetration ducts does not impair the functioning of the WCCPPS because containment isolation valves and control system prevent excessive WCCPPS air consumption. The reference to flow restriction devices in section 6.6.2 of the FSAR has been deleted.

1994 ANNUAL REPORT

NSE 94-3-332 SFPC, REV. 0

EVALUATION OF TEMPORARY MODIFICATION 94-03060-11
FOR SUPPORT WELD REPAIRS TO SFPC PUMP NO. 32 SECTION PIPING

Description and Purpose

Temporary Modification 94-03060-11 provided temporary support of the suction piping for spent fuel pool cooling pump no. 32 during weld repairs. A section of suction pipe was cut out and replaced, potentially placing excess loading on the remaining piping.

Summary of Safety Evaluation

The temporary support was a standard and prudent construction practice which kept pipe stresses within analyzed boundaries, thereby protecting the integrity of the operating Spent Fuel Pool Cooling (SFPC) pump no. 32.

1994 ANNUAL REPORT

NSE 94-3-335-SI, REV. 0

EVALUATION OF DIFFERENTIAL PRESSURE TEST PROCEDURES
ENG - 557B AND ENG - 557D

Description and Purpose

The purpose of this evaluation was to determine if the implementation of ENG-557B, Rev. 0, "Differential Pressure and Flow Test of SI-MOV-888 A and B, 1869 A and B and 887 A and B" and ENG-557D, Rev. 0, "Differential Pressure and Flow Test of SI-MOV-883" creates an unreviewed safety question. The intent of ENG-557B was to demonstrate the operability of the subject Residual Heat Removal (RHR) System valves by cycling them under the maximum differential pressure conditions attainable without modifying the existing normal RHR system reactor coolant flow path.

Summary of Safety Evaluation

The implementation of the subject ENGs was determined to be acceptable since it would not create conditions outside of the unit design basis. Performance of the ENGs would not increase the possibility or the probability of an accident or malfunction of any type other than those previously evaluated in the FSAR. The performance of the ENGs would confirm the tested valves' operability as relied upon by the basis of the Technical Specifications.

1994 ANNUAL REPORT

NSE 94-3-338 RWD, REV. O

PERMANENT INSTALLATION OF 31 SUMP TANK PUMP
SUCTION STRAINERS ST-42 AND ST-43

Description and Purpose

The purpose of this NSE was to evaluate the affect of permanently installing temporary strainers ST-42 and ST-43 at the suction of No. 31 Sump Pump. Operating history has indicated a need for these strainers to support effective operation of the liquid radioactive waste system. The presence of the suction strainers provides protection for the sump tank pumps and minimizes generation of radiation hot spots.

Summary of Safety Evaluation

Permanent basket strainers, ST-42 and ST-43, installed at the suction of the sump tank pumps will upgrade the performance to the 31 Sump Tank System and can be left installed since they do not increase the probability or create the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.

1994 ANNUAL REPORT

NSE 94-3-340 CCW, REV. 0

COMPONENT COOLING WATER (CCW) SYSTEM OPERATION EVALUATION

Description and Purpose

This NSE evaluated pressure surges on the CCW system that exceeded the system nominal design pressure of 150 psig. These surges were caused by inadequate venting and resulted in the CCW system relief valve lifting, remaining stuck open, and discharging water to the containment sump.

Summary of Safety Evaluation

This evaluation determined that a malfunction of one header relief valve would still allow the system to perform its functions and a malfunction of a relief valve in both headers, or loss of component cooling, has been addressed in Procedure SOP-CC-1A, Rev. 9.

1994 ANNUAL REPORT

NSE 94-3-394 N₂

PORV NITROGEN SUPPLY FROM SI ACCUMULATORS

Description and Purpose

The Safety Evaluation addressed providing a continuous N₂ source for the pressurizer Power Operated Relief Valves (PORVs) from the safety injection accumulators.

Summary of Safety Evaluation

Since the two PORV accumulators, at six cubic feet of volume, were connected to the SI accumulators, at 1,100 cubic feet, the overpressurization protection system was able to exceed its required design capability and ensure necessary operation potential. Temporary Modification 94-04169-08, which blocks open the gas supply valve to the PORV accumulators, documented the connection.

1994 ANNUAL REPORT

NSE 94-3-442 CRHV, REV. 0

31 & 32 CONTROL ROOM AIR CONDITIONING
HEATING COIL REMOVAL

Description and Purpose

This Temporary Modification removed the heating coils from Nos. 31 and 32 Control Room Air Conditioning units to facilitate cooling coil cleaning and maintenance. The coils are to be permanently retired and will be documented under MMP 94-3-334 CRHV.

Summary of Safety Evaluation

The heating coils provide no safety function and are not required by Technical Specifications.

1994 ANNUAL REPORT

NSE 94-3-453 LWD, REV. 0

INSTALLATION OF TEMPORARY TRANSFER ASSEMBLY IN ACCORDANCE
WITH TEMPORARY MODIFICATION 94-05578-01 AND
UPDATE OF FSAR FIGURE 9.6-15

Description and Purpose

This NSE evaluated the effect of installing a temporary hose assembly (Temporary Modification 94-05578-01) that is connected to the demineralizer equipment outlet and routed to the outlet of radiation monitor R-18 through a Station Air piping penetration. This Temporary Modification facilitates the transfer of processed radioactive liquid from the demineralizer to the monitor tanks. This was installed as an alternative path due to failure of a previous Temporary Modification (80-3-023).

Any leakage from this transfer line will be contained within the Fuel Storage Building and the Primary Auxiliary Building and will not allow a direct release of waste liquid or gas to the environment in excess of 10CFR20.

Summary of Safety Evaluation

This Temporary Modification required the station air supply to be isolated to allow the station air piping to be used as conduit. Its capability and consequences has been evaluated to be acceptable under NSE 94-3-117.

1994 ANNUAL REPORT

NSE 95-3-026 N₂

TEMPORARY MODIFICATION TO THE NITROGEN SUPPLY SYSTEM

Description and Purpose

Temporary Modification 93-03766-04 placed an N₂ jumper to allow low pressure gas supply availability to various primary equipment (boric acid storage tanks, volume control tank, reactor coolant drain tank, etc.) during repairs to high pressure N₂ valves.

Summary of Safety Evaluation

The high pressure N₂ capability was not required for the associated plant mode (cold shutdown). The provision for low pressure availability allowed continuous operation of various equipment required to support plant activities.

1994 ANNUAL REPORT

NSE 95-3-114 SGS, REV. 0

STEAM GENERATOR SAMPLE CHLORIDE ANALYZER EVALUATION OF
TEMPORARY MODIFICATION 94-05698-03

Description and Purpose

The Safety Evaluation examined the effect of installing a temporary steam generator blow down chloride analyzer as part of the existing sampling system.

Summary of Safety Evaluation

The chloride analyzer connects to non-Category I equipment and has no adverse effect upon plant safety. The reliability and accuracy of the analyzer is such that design work has been undertaken to make the addition permanent.