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November 20, 2001  
IPN-01-078

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop O-P1-17  
Washington, D.C. 20555-0001

SUBJECT: Indian Point 3 Nuclear Power Plant  
Docket No. 50-286  
License No. DPR-64  
**Code of Federal Regulations 10 CFR 50.59,**  
**Annual Report of Changes, Tests and Experiments**

Dear Sir:


This letter transmits the 2000 Annual Report of changes, tests and experiments conducted at the Indian Point 3 Nuclear Power Plant in accordance with 10 CFR 50.59 for the period of January 23, 2000 to January 22, 2001. The report, required by 10 CFR 50.59(b)(2), is contained as Attachment 1.

Each change, test or experiment has been reviewed to ensure that: the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report has not been increased; the possibility of an accident or malfunction of a different type than any evaluated previously in the safety analysis report has not been created; and the margin of safety as defined in the basis for any technical specification has not been reduced. The review concluded that these changes, tests and experiments did not involve any unreviewed safety question.

Should you or any of your staff have questions concerning this matter, please contact Mr. Mark Smith, Director of Engineering at (914) 736-8003.

Entergy is making no commitments in this submittal.

Very truly yours,

  
Robert J. Barrett  
Vice President Operations  
Indian Point 3 Nuclear Plant

Attachment

IE47

Reed  
01/23/02

cc: Hubert J. Miller  
Regional Administrator  
Region 1  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406-1415

U.S. Nuclear Regulatory Commission  
Resident Inspectors' Office  
Indian Point 3 Nuclear Power Plant

2000 ANNUAL REPORT

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NSE 91-3-173 RW, REV. 1

INSTALLATION OF RIVER WATER TEMPERATURE RECORDERS  
FOR SPDES

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Description and Purpose

The purpose of this NSE was to evaluate the replacement of the two windup temporary recorders with two permanent electronic battery-operated recorders.

Revision 1 of this NSE corrected typographical errors and incorporated changes in regards to how and where the new probe for the recorder located at the Intake Structure was to be located.

Summary of Safety Evaluation

IP3 monitors temperature per the State Pollutant Discharge Elimination System (SPDES) as a backup to Con Edison in case of failure to their system.

The new permanent recorders are more efficient and only require operator intervention every 11 months to change batteries versus every 7 days to rewind them. The probe for the new recorder located at the intake structure was relocated to provide more accurate readings. The new probe is located below the lowest tide level. The 3" pipe required for the cable was fastened to the existing intake structure column facing to prevent interference with the service water suction. The new temperature probe cables for the recorders were routed in conduit, electrical flexible non-metallic tubing (ENT), and/or stainless steel pipe for mechanical protection. New stainless steel pipe was installed and mounted on the intake structure wall for the intake recorder and an existing spare stainless steel pipe was utilized for the discharge recorder.

This modification installed components that have no effect on any existing plant systems. There is not any equipment important to safety located at the discharge canal. There are no unreviewed safety questions as a result of this change.

## 2000 ANNUAL REPORT

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NSE 93-3-162 SI, REV. 1

ADEQUATE POST-LOCA COOLANT INVENTORY

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Description and Purpose

The purpose of this NSE was to evaluate the capability of the Refueling Water Storage Tank (RWST) in regards to the ability to provide sufficient coolant to the Containment Sump (CS) following a Loss of Coolant Accident (LOCA).

Revision 0 of this NSE revised RWST level instrumentation setpoints and requirements needed to ensure proper water capacity for continued RWST operation.

Revision 1 of this NSE evaluated the Net Positive Suction Head (NPSH) requirements for the Recirculation Pumps.

Summary of Safety Evaluation

This NSE demonstrated that these revised setpoints for the RWST alarm would ensure the water volumes injected from the RWST subsequent to a LOCA would be sufficient for accident mitigation, in accordance with the assumptions of the IP3 design basis. It showed this by dividing the RWST into zones of water and that each zone (by itself or in combination with other zones) was adequate to accomplish its individual purpose(s). These include: satisfaction of recirculation pump NPSH, subcriticality, adequate core cooling, sump pH control, containment spray requirements, allowances for instrumentation, and supporting the time required to realign from injection to recirculation phase.

Revision 1 of this NSE re-evaluated the RWST zones, in light of new recirculation pump NPSH requirements that had arisen since Revision 0 was implemented. It reconfirmed that the water volumes provided by the RWST post-LOCA remained adequate to support accident mitigation in accordance with the IP3 design basis and that no unreviewed safety question exists as a result of this change.

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NSE 94-3-228 CL, REV. 0

CHLORINATION SYSTEM PIPING REPLACEMENT

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Description and Purpose

This NSE evaluated the Minor Modification Package (MMP) 94-3-228 CL for repair of the Chlorination System to prevent releases of sodium hypochlorite to the environment.

Summary of Safety Evaluation

This NSE determined that MMP 94-3-228 CL minimized the potential for sodium hypochlorite spills by minimizing flanged joints and by providing protection for the piping. The piping was located either in buildings or within a guard pipe and was designed with both a minimum total installed length and a minimum number of fittings.

This modification replaced the eight existing Fiberglass Reinforced Piping (FRP) supply lines with a new two header supply arrangement. The change from the eight header to a two header arrangement minimized the amount of piping and joints, thus reducing the potential for leakage. These changes reduce the potential for leakage and do not create an unreviewed safety question.

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NSE 96-3-143 LWD, REV. 1

LIQUID WASTE DISPOSAL SYSTEM WITH CONTRACTOR  
PROCESSING SYSTEM WITHOUT THE AVAILABILITY OF  
THE UNIT 1 RADWASTE INTERTIE

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Description and Purpose

The purpose of this NSE demonstrates that continued operation of the IP3 Radioactive Liquid Waste Disposal System without the Unit 3 to Unit 1 Radioactive Liquid Waste Intertie Line (radwaste intertie) was consistent with the FSAR design criteria.

Revision 1 of this NSE justified the removal of the radwaste intertie along with continued operation of the IP3 Liquid Waste Disposal System without the radwaste intertie as described in Minor Modification Package (MMP) 96-3-143 LWD.

Summary of Safety Evaluation

This Design Change cut and retired the radwaste intertie line between Unit 1 and Unit 3. Unit 3 relies exclusively on the plant-installed tanks and equipment and a contractor processing skid located in the Fuel Storage Building to achieve the FSAR objectives. The elimination of the Consolidated Edison pathway did not have any connection with equipment necessary for safe shutdown of the plant and therefore cannot be an input to cause or initiate a malfunction to equipment important to safety. The increased capacity over original design offers sufficient capacity to store generated waste prior to processing. There are no unreviewed safety questions resulting from this change.

## 2000 ANNUAL REPORT

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NSE 96-3-161, REV. 1

BULK HYDRAZINE TRANSFER EQUIPMENT

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Description and Purpose

The purpose of this NSE was to evaluate changes to the hydrazine transfer equipment made by minor modification MMP 96-3-161 HA, Revision 1 that included the deletion of the dike associated with this Design Change.

Summary of Safety Evaluation

Hydrazine was added to the Condensate System to reduce oxygen and increase pH to minimize corrosion of secondary side components. Controlled hydrazine addition ensures steam generator water chemistry is maintained within the units given in plant procedures. To reduce personnel exposure to hydrazine, a transfer pump skid was installed under temporary modification TM 95-3226-00 to eliminate the use of 55 gallon drums and the portable transfer pump. This NSE determined it acceptable for the TM to become permanent plant equipment and allowed the bulk hydrazine transfer skid to be anchored to the EL 15-0" Turbine Building floor. The hydrazine transfer pump discharges to the top of the Chemical Feed Tanks. The hydrazine transfer equipment does not provide any pressure boundary integrity for the tanks, the Condensate or the Feedwater systems and does not affect operation of these systems in any manner.

FSAR Figure 10.2-11, Flow Diagram for the Chemical Feed was updated to include the hydrazine tank and permanent plant transfer skid and to incorporate the changes necessary to accurately reflect the system configuration. These changes comply with New York State Department of Environmental Conservation Statutes. They did not effect any equipment credited in the Safety Analysis Report. The hydrazine cannot migrate into groundwater or the Hudson River in compliance with the IP3 Environmental Technical Specifications. Storage of the hydrazine tanks in the Turbine Building does not adversely affect the site Fire Protection Program. It is concluded that no unreviewed safety question exists as a result of these changes.

## 2000 ANNUAL REPORT

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NSE 96-3-180 H2, REV. 0

EVALUATION OF THE REPLACEMENT OF  
31 AND 32 HYDROGEN DRYERS

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Description and Purpose

The purpose of this NSE was to evaluate the impact of the replacement of 31 and 32 Main Generator Hydrogen Dryers with an upgraded model and to demonstrate that this replacement does not represent a change to the plant Technical Specifications.

Summary of Safety Evaluation

This evaluation determined that the new dryers, which are the same model and manufacturer with added features, are an improvement over the existing installations in that an explosion is highly unlikely in the new dryers since their design incorporates a control panel purging system, junction box venting, and sealing fittings.

These new dryers do not alter the design and operating conditions from the material, QA class and design pressure/temperature viewpoints. This change does not challenge the design limits of the Main Generator Hydrogen System or its components and they do not impact any systems subject to operational transients or design basis accidents. There is no impact to the manner in which the Main Generator Hydrogen moisture is removed. This evaluation concludes that the installation of the new dryers will not challenge nuclear safety but rather decrease personnel and equipment safety risks due to the improvements in the control panel and junction box design. There are no unreviewed safety questions from the installation of these improved dryers.



## 2000 ANNUAL REPORT

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NSE 96-3-290, REV. 1

EVALUATION OF THE REPLACEMENT OF  
#31 HYDROGEN DRYER

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Description and Purpose

The purpose of this NSE was to evaluate the impact of the replacement of #31 Hydrogen Dryer with an upgraded model.

Revision 1 of this NSE was to evaluate the restoration of the hydrogen flowpath to the primary flowpath.

Summary of Safety Evaluation

This Minor Modification Package (MMP) replaced the Main Generator Hydrogen Dryer #31. The upgraded dryer features a control panel purging system, diagnostic package, inlet and outlet dew point meters, and other state of the art technology that greatly improves generation protection, maintenance activities, and personnel safety.

This MMP included changes to the hydrogen system lines, cooling water lines, instrument air lines, electrical connections, and instrument connectors for the replacement of the #31 Dryer which was re-located.

These changes enhance the performance of the Main Generator Hydrogen System and return the flowpath to its original intended configuration. Personnel and equipment safety risks have been diminished due to improvements in the control panel and junction box design. These changes do not create any unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 96-3-395 FP, REV. 1

DEVELOPMENT OF ADMINISTRATIVE PROCEDURE AP-64.1  
AND EVALUATION OF A CHANGE  
TO OPERATIONAL SPECIFICATIONS 3.2 AND 3.5

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Description and Purpose

The purpose of this NSE was to evaluate Administrative Procedure AP-64.1 which was developed as part of the Fire Protection Program to identify systems and components governed by Operational Specification (OS) 3.2, Appendix R Safe Shutdown Equipment, and OS 3.5, Fire Protection and Detection Systems.

Revision 1 of this NSE evaluated the necessary changes resulting from changes to the Technical Specifications and the Appendix R Safe Shutdown Analysis. It also clarified the application of completion time rules and incorporated editorial changes to the specifications and tables to improve readability, and useability.

Summary of Safety Evaluation

New Administrative Procedure AP-64.1 incorporated lists of Fire Protection and Appendix R systems and components and established criteria to clarify the scope of systems and components governed by the Fire Protection/Appendix R Operational Specifications. These changes enhanced the existing controls over systems and components and eliminated the mode change restriction in the Appendix R Operational Specifications. These changes did not alter the design, operation or function of any structure, system or component which play a role in mitigating the consequences of an accident previously evaluated in the FSAR. These changes do not reduce the margin of safety as defined in the basis of any Technical Specification. Therefore, this activity does not constitute an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 97-3-073 COND, REV. 1

REMOVAL OF TEMPORARY INSTRUMENTATION TO MONITOR  
PERFORMANCE OF FEEDWATER HEATERS 31 AND 32

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Description and Purpose

The purpose of this NSE was to evaluate the installation of Temporary Modification (TM) 96-07498-16 which installed instruments and components to record electrically the level signals of 31 and 32 A, B, C, Feedwater Heaters (FWHs). Since the installation of TM 96-07498-16, it was determined that the non-intrusive portion could be removed while the plant is at power.

Revision 1 evaluated TM Change 96-07498-17 which removed the non-intrusive portion of the TM.

Summary of Safety Evaluation

Temporary Modification 96-07498-16 was installed to monitor the performance of the 31 and 32 A, B, and C Feedwater Heaters. Temporary Modification 96-07498-17 removed this equipment with the exception of the isolation valves in the pneumatic signal loops which are to be removed in the future. The "As-Left" components (like tube tees, isolation valves and caps in the pneumatic signal tubing) are of minor nature and of minute details. As such, the FSAR diagram will not be modified to include them. The FSAR diagram is accurate enough to reflect the intent of the instrument system. As a result of this TM, the existing pneumatic signals were unaffected. With the exceptions of the tube tees, isolation valves and caps, the systems are being returned to their original design configuration. This instrument system is not safety related and credit is not taken in the FSAR for its functions. These pneumatic signals are not used to mitigate the consequences of any design basis accident as described in the FSAR. These changes did not affect the safety function of these systems, and they did not decrease the existing margin of safety. There is no unreviewed safety question resulting from these changes.

## 2000 ANNUAL REPORT

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NSE 97-3-424 CO2, REV. 2

INSTALLATION OF SEISMIC CONTROL PANELS FOR THE  
EMERGENCY DIESEL GENERATOR CELLS CO2 SYSTEM  
AND SUPPORTING SYSTEM IMPROVEMENTS

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Description and Purpose

The purpose of this NSE was to provide justification for changes made to the Emergency Diesel Generator Cells CO2 Fire Protection System. Revision 2 of this NSE evaluated the elimination of the requirement to control and implement functional testing as a special evolution and the administrative controls imposed during testing to ensure the support function of the emergency diesel generator (EDG) ventilation system and the continued operability of the EDG.

Summary of Safety Evaluation

This activity involved a Design Change to the CO2 Fire Suppression Systems provided in the EDG cells to prevent an inadvertent operation of the systems resulting in a discharge of CO2 or result in an unacceptable loss of the ventilation systems which serve these rooms. The scope of this Design Change included the installation of three safety-related Seismic Class I CO2 Auxiliary Control Panels (one per EDG) which electrically interface between non-safety related Seismic III CO2 Fire Suppression Systems, and the safety-related Seismic Class I Ventilation Systems which provide cooling and combustion air for the EDGs. The panels also control a solenoid valve (one per system) which prevents CO2 discharge without a valid heat detection signal.

The installation of this Design Change does not alter the operation or function of any structure, system or component which plays a direct role in mitigating the consequences of an accident previously evaluated in the FSAR. The change does not reduce the margin of safety as defined in the basis of the Technical Specifications. Therefore, the activity does not constitute an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 97-3-439 MULTI, REV. 0

INSTALLATION OF SIGNAL ISOLATORS IN THE  
PRESSURIZER PRESSURE, PRESSURIZER LEVEL AND  
STEAM GENERATOR LEVEL SIGNAL LOOPS TO PROVIDE  
BOUNDARY SEPARATION BETWEEN THE REG GUIDE 1.97  
INDICATORS AND THE PROCESS CONTROLLERS

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Description and Purpose

This NSE evaluated installing signal isolators for the purpose of boundary separation of control loops with associated Reg. Guide 1.97 indications. This installation was implemented via Design Change (DC) 97-3-439 MULTI.

Summary of Safety Evaluation

The design change installed additional signal isolators in the signal loops of the pressurizer pressure control, pressurizer level control, and steam generator 31-34 level controls for protection of Reg. Guide 1.97 indicators from the non-safety related control loops. The signal isolators maintain the integrity of the input signal and assure the indication and protection function of the incoming signal irrespective of the condition of the output signal. The output signal is then used for control, which is not a safety function.

The currently installed signal isolators will maintain the integrity of the protection grade instruments and provide an active boundary to the non-safety controllers. These control components are operated using the same signal loops without isolation from the Reg. Guide 1.97 instrumentation. The new isolators will provide an active boundary between the Reg. Guide 1.97 instrumentation and the control components. AC power required for operation of the new signal isolators is taken from the existing instrument buses.

Installation of the signal isolators does not intrude into the electrical signal currents on the existing reactor protection function circuits, does not affect existing reactor protection function and does not degrade the margin of safety. Therefore, this activity does not involve an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 98-3-019, REV. 5

BACKUP SPENT FUEL POOL COOLING SYSTEM

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Description and Purpose

This NSE evaluated the Backup Spent Fuel Pool Cooling System (BSFPCS) which is primarily used for the elimination of the long-standing maintenance limitations of the 31 Component Cooling Water (CCW) loop and the existing Spent Fuel Pool (SFP) cooling loop.

Summary of Safety Evaluation

This Design Change installed a permanent and independent BSFPCS capable of operation during all plant modes, which provides a means to cool the SFP for a limited time period while the existing cooling system is not available. Subsequently, this NSE was cited a violation by the NRC, NCV 05000286/2001-006-03, for an increased probability of a malfunction of equipment important to safety previously evaluated in the safety analysis report and, therefore, constituted an unreviewed safety question and was a violation of 10 CFR 50.59.

## 2000 ANNUAL REPORT

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NSE 98-3-074, REV. 0

UPGRADE OF THE SGBD  
TEMPORARY MOD TO PERMANENT STATUS

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Description and Purpose

This NSE evaluated upgrading existing documentation to reflect current as-built and operating conditions as a result of making Temporary Modification (TM) 96-00872-04 a permanent change. It deleted interfaces from the Gould programmable controller, but left the associated peripheral equipment and wiring within the Steam Generator Blow Down Recovery (SGBDR) Control Panel intact to become a permanent change.

Summary of Safety Evaluation

TM 96-00872-04 rewired the control circuits of valves AOV-1 and AOV-2 using existing switches and relays to perform the same functions as the original control logic. It was determined that operation using the TM manual operation of the remaining system motor operated valves was satisfactory and the most cost effective to allow possible return to the prior operational mode with the least impact if change is required in the future. Therefore, it was decided to make the rewiring done under the TM, a permanent revision via the modification process.

The SGBDR system serves no safety-related purpose. This permanent change does not affect or interface with the SGBD piping containment isolation valves or their controls. The equipment modified consists of controls and interlocks associated with operation of the SGBDR system which has no safety function and is automatically isolated to prevent any release. This permanent change does not present an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 98-3-080 WTS, REV. 1

CONTRACTOR WATER TREATMENT SYSTEM

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Description and Purpose

The purpose of this NSE was to demonstrate that Design Change Package (DCP) 98-3-080 WTS, "Permanent Tie-Ins for Contractor Water Treatment Systems (CWTS) Modification," complied with the licensing and design basis.

Revision 1 of this NSE evaluated the setpoint increase to the Waste Neutralization Tank (WNT) Level Channel High Alarm, clarified the generic flame retardancy requirements of new cables connected to the new CWTS transformer, and eliminated references to a specific cable manufacturer.

Summary of Safety Evaluation

The CWTS, with its higher quality water, eliminates the need to add chemicals to neutralize the CWST backflush water within the WNT. The WNT Level Channel High Alarm setpoint had been set at approximately 60% tank level per Calculation No. IP3-CALC-WT-03226 and SCR-00-0006. The setpoint was changed to 90% of WNT level which allows higher volumetric use of WNT during CWST backflushing. This new setpoint helps to eliminate nuisance alarms.

The cables installed per DCP-98-3-080 WTS from the House Service Boiler to the CWTS transformer are located under the IP1/IP3 bridge. This cable was not routed with safety-related cables nor was it routed inside containment. It is fire retardant to a current standard, is consistent with other plant cables, and this installed cable meets the cable requirements of FSAR Section 8.2.2.

The operation of the CWTS does not increase the probability of occurrence or the consequences of an accident previously evaluated in the FSAR nor does it create the possibility of an accident of a different type. Therefore, the installation, operation of the CWTS and retirement of the Water factory is safe and does not create an unreviewed safety question.



## 2000 ANNUAL REPORT

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NSE 98-3-083 ADMIN, REV. 1

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TEMPORARY STORAGE OF QUALITY ASSURANCE RECORDS

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Description and Purpose

This NSE evaluated the provision of the Records Management Program that permits temporary storage of quality assurance records in 1-hour fire rated file cabinets until they are turned over to Records Management for permanent storage. It also reviewed this provision to determine if it reduced the commitments in the program description previously accepted by the NRC.

Revision 1 of this NSE clarifies the guidance of NFPA 232-1975 and evaluated the activity for its impact on the approved quality assurance program.

Summary of Safety Evaluation

This safety evaluation determined that the Records Management Program, which permits the temporary storage of quality assurance records in 1-hour fire rated cabinets until they are turned over to Records Management for permanent storage, is acceptable and consistent with the guidance of NFPA 232-1975 which is recognized by NRC Regulatory Guide 1.88, Revision 2. NFPA 232-1975 imposes additional requirements for these records in a non-fire resistive building. In this case, the file cabinet shall also be rated for impact resistance and the non-fire resistive building shall not be greater than two stories in height.

This change is limited to the storage of quality assurance records and does not affect the physical plant in any way, nor does it alter the design, operation or function of any structure, system or component used to mitigate accidents. This change does not constitute a change to the Approved Quality Assurance Program nor does it reduce the commitments in the program description previously accepted by the NRC. The change does not reduce the margin of safety as defined in the basis of the technical specifications. Therefore, the change does not constitute an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 98-3-095 CVCS, REV. 1

INSTALLATION OF RADAR LEVEL MEASURING SYSTEM  
FOR BORIC ACID STORAGE TANKS 31 AND 32

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Description and Purpose

The purpose of this NSE was to evaluate the installation of Design Change Package (DCP) 98-3-095 CVCS for the installation of the new Radar Level Measuring System for the Boric Acid Storage Tanks (BAST 31 & 32).

Revision 1 of this NSE evaluated retiring in place the Foxboro Bubbler Level Measuring System and its effect on the operability of emergency boration flow paths on a loss of BAST Radar Continuous Measurement Instrument (RCMI) Level Instrumentation.

Summary of Safety Evaluation

DCP 98-3-095 CVCS allowed the installation of the RCMI system, which increased the reliability of the BASTs level indication system. The Foxboro Nitrogen Bubbler system will be retired in place after de-energizing.

Due to tube plugging, the previous Bubbler system (for BAST 31 & 32) had frequently required an entry into a forty-eight hour Limiting Conditions of Operation (LCO) Action, for rodding out. In addition, the Bubbler system level indication became erroneous due to the tubes plugging. The RCMI is non-intrusive to the BAST solution and provides for a more accurate and reliable level indication. In addition, it is not subjected to the tube clogging problems associated with the previous instrumentation. Loss of the RCMI will not render the boration flow path inoperable, because alternate means of estimating RCS Boron injection are available. RCS Boron Concentration is validated by sampling. Functionality of the BAST level measurement system is not required to mitigate the consequences of a design basis accident.

It is concluded that there will not be any decrease to margin of safety as defined in the bases of the technical specifications by use of the RCMI, and the retirement of the Foxboro Bubbler Measurement System. This modification does not involve an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 98-3-128, REV. 1

BATTERY CHARGER 35 REPOWERING

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Description and Purpose

This NSE evaluated Minor Modification Package (MMP) 98-3-128 DCPWR which allowed flexibility to power the installed spare Battery Charger (BC) 35 from any one of the Motor Control Centers (MCCs) 36C, 36D or 36E so it could be used for replacement of BC 31, BC 32, BC 33 or BC 34.

Revision 1 of this NSE clarified that after implementation of MMP 98-3-128 DCPWR, BC 35 (if in service) would automatically be aligned and loaded to the proper EDG train during a LOOP.

Summary of Safety Evaluation

This modification re-powered Battery Charger (BC) 35 by replacing the single dedicated, permanent power supply from MCC 39 to BC 35 with three separate feeds from MCCs 36C, 36D and 36E. Each one of the feeds was routed to a dedicated receptacle. The input feeder to BC 35 was connected to one single plug whereby the desired feed can be selected and "plugged in" to any one of the three receptacles based on the plant requirements; thus ensuring the proper power supply line-up when BC 35 is used in place of any one of the existing BCs. In addition, the BC 35 local trouble alarms were wired into the Central Control Room (CCR) Common BC Trouble Alarm.

Repowering BC 35 from the above identified MCCs (36C, 36D or 36E) allowed it to be supplied from a more reliable source, the same source for the BC it is being used to replace. Installation of this modification allowed BC 35 to be utilized as a replacement for any one of the safety-related BCs 31, 32, 33 or 34 without any degradation from a functional or plant safety standpoint. This change did not reduce the margin of safety as defined in the basis of any Technical Specification and does not constitute an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 99-3-035 SFPL, REV. 1

RWST PURIFICATION WITHOUT CONTINUOUS MANNING  
WHILE ABOVE COLD SHUTDOWN

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Description and Purpose

Revision 1 of this NSE justified operating RWST Purification without a dedicated person and supports the relocation of the QA Cat I, Seismic Class I boundary piping system to include check valve AC-726B.

Revision 0 of this NSE evaluated operation of the non-safety related, non-seismic, Refueling Water Storage Tank (RWST) Purification Loop. This NSE had required a dedicated person to be continuously stationed near the RWST Purification Pump in the PAB while the Reactor was above Cold Shutdown (CSD), in order to ensure timely isolation of the flowpath should its integrity be lost.

Summary of Safety Evaluation

This revised NSE justified the piping and component re-classifications together with administrative controls to allow un-manned operation of the RWST purification system. The QA and Seismic Classification boundaries were relocated so that check valve AC-726B, which had not previously been safety related, could now be credited to isolate the non-safety related return portion of the purification loop. The reclassification allowed use of a check valve that satisfied the Safety Injection and Auxiliary Cooling System design criteria for the plant.

The operational configuration change allowed the non-seismic Purification Sub-System to be inservice (opened) at the seismic boundary of the RWST piping provided an Operator is available to perform prompt (within 46 minutes) purification system isolation if required. The administrative controls were placed in effect to ensure that sufficient RWST inventory is maintained above the minimum Technical Specification level whenever the loop isolation valves are opened. These controls include procedural requirements to promptly isolate the RWST purification loop for specified conditions/events. These changes do not reduce the margin of safety as defined by any Technical Specification or TS Basis or require a change to the IP3 Technical Specifications and neither do they constitute an unreviewed safety question.

2000 ANNUAL REPORT

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NSE 99-3-075, REV. 1

IMPLEMENTATION OF REV. 1C TO THE WOG ERGS

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Description and Purpose

The purpose of this NSE was to evaluate Revision 1C of the Westinghouse Owner's Group (WOG) Emergency Response Guidelines (ERGs) as applied to three specific Emergency Response Procedures (EOPs) and to provide a single-source safety evaluation for the entire EOP set.

Summary of Safety Evaluation

The revised EOP set represents a significant enhancement to the previous procedures, in particular with regard to flexibility in loading of non-vital equipment during non-limiting event scenarios. The revised set of procedures contain fewer deviations from the WOG ERGs than the previous set. This NSE effectively complies with, either by reference or through superseding of existing NSEs, the Technical Bases for the entire EOP set. It was concluded that applying WOG ERGs does not create an unreviewed safety question.

2000 ANNUAL REPORT

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NSE 99-3-094 CVCS, REV. 0

REVISION TO RELOCATED TECHNICAL SPECIFICATION 3.2

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Description and Purpose

The purpose of this NSE was to evaluate changes to Technical Specification (TS) 3.2 for removal of the Chemical Volume and Control System (CVCS) and its surveillance requirements (Tables 4.1) by Amendment 200, and its subsequent relocation to Operational Specification (OS) 3.6 (an administrative control document).

Summary of Safety Evaluation

This NSE determined that the removal of TS 3.2 and its relocation to OS 3.6, which encompassed the Administrative, More Restrictive, and Removed Detail changes that revised the custom format of the removed TS to more closely reflect the format and content of standardized TS (approved by the NRC), did not represent an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 99-3-102 HVAC, REV. 0

NUCLEAR GRADE ACTIVATED CHARCOAL FILTERS

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Description and Purpose

The purpose of this evaluation was to specify the current activated carbon design requirements necessary to meet NRC Generic Letter 99-02 and ASTM D3803-89 and to evaluate the use of an improved type of charcoal.

Summary of Safety Evaluation

This safety evaluation reviewed the NRC's position in Generic Letter 99-02 which endorses the ASTM D3803-1989 testing standard.

Test data from the charcoal manufacturer for the new installed charcoal filters shows a higher removal efficiency of 99.95% for methyl iodides when tested in accordance with ASTM D3803-1989. These charcoal filters are an improved type of filter impregnated with triethylene diamine (TEDA) and potassium iodide (KI) to enhance its ability to absorb organic radioiodine compounds. The filters were tested to ensure compliance with the Technical Specifications.

The FSAR was revised to allow the use of the new improved charcoal and this change does not present an unreviewed safety question, concern or negatively impact public health and safety.

## 2000 ANNUAL REPORT

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NSE 00-3-003, REV. 4

ORGANIZATIONAL CHANGES - NUCLEAR GENERATION  
REALIGNMENT

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Description and Purpose

The purpose of these safety evaluations was to evaluate changes to the organizational structure involving the addition of a management position in the nuclear organization, the re-naming of a position, and changing reporting relationships. Revision 0 of this NSE evaluated the removal of management positions from the nuclear organization and the reassignment of position responsibilities and reporting relationships.

Revision 1 of this NSE allowed a temporary change in the reporting relationship for the Site Planning and Outage Services Manager.

Revision 2 of this NSE evaluated the transfer of responsibility for the Nuclear Safety Speakout Program from the Director of Security to the Director of Regulatory Affairs and Special Projects.

Revision 3 of this NSE evaluated the new position of Manager of Programs and Components Engineering and removed the specific engineering manager position titles.

Revision 4 of this NSE evaluated the deletion of the positions titled Plant Manager and General Managers (GMs), the removal of the specific manager position titles that were listed under the GMs and the addition of the positions titled GM of Plant Operations and Director of Safety Assurance.

Summary of Safety Evaluation

These organizational changes do not eliminate any functional requirements. These changes are administrative in nature and do not involve plant equipment or operating conditions. They will not reduce the effectiveness of the management of activities or of the oversight of plant operations. Therefore, these changes do not involve an unreviewed safety question.



## 2000 ANNUAL REPORT

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NSE 00-3-004 RHR, REV. 0

RHR PUMP SEAL FAILURE

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Description and Purpose

The purpose of this NSE was to evaluate and correct the statement in the FSAR that incorrectly stated the operators will be alerted to a Residual Heat Removal (RHR) pump seal break by a Component Cooling Water (CCW) high flow alarm and to clarify the location of this failure.

Summary of Safety Evaluation

This safety evaluation supported deleting reference in FSAR Section 6.7.1.2 to the non-existing high flow alarm. The failure described in this section would cause the water level in the CCW surge tank to rise, but to detect the increase in flow in the CCW line from the RHR pump, a high flow alarm would be required and the alarm installed in the plant is a low flow alarm. If a RHR pump seal water heat exchanger fails, the operator will be alerted by the CCW surge tank water level alarm via LC628A and LC629A and by radiation and temperature monitors at the CCW pump header and not by the high flow alarm referenced in the FSAR. Since other alarms exist, even though the high flow alarm does not exist there are no unreviewed safety questions resulting from these changes.

## 2000 ANNUAL REPORT

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NSE 00-3-016 SI, REV. 0

FSAR UPDATE FOR VALVE BACKSEAT ISSUE

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Description and Purpose

The purpose of this NSE was to determine if revising IP3 FSAR regarding the use of valve backseats would result in an unreviewed safety question and to incorporate editorial changes for correctness and consistency.

Summary of Safety Evaluation

Section 6.2.2 of the FSAR stated that in the Safety Injection System "those valves which are normally open" are backseated. Contrary to this statement, current practice at IP3 does not require backseating normally open valves as a general practice. It is an accepted industry practice to avoid the backseating of valves. Valve stem packing is relied upon to control valve leakage to effectively zero.

This NSE determined that the changes to the FSAR does not affect any safety analysis and actual leakage is monitored per Technical Specifications allowable leakage; these changes do not change the ability of existing plant equipment from performing its intended safety functions and no unreviewed safety questions exist.

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NSE 00-3-024 MTG, REV. 0

TURBINE LOAD CONTROL

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Description and Purpose

The purpose of this NSE was to correct FSAR Sections 7.3.3 and 10.1.2, Turbine Load Control, for consistency. These changes clarify statements in the FSAR for Turbine Load Control.

Summary of Safety Evaluation

The changes in this safety evaluation are editorial, do not require any modification to the configuration of the plant and do not require any change in the methodology and processes that operate the plant. This activity only clarifies the statements in the FSAR for Turbine Load Control. Therefore, it is concluded that no unreviewed safety question exists since the proposed changes will not result in the ability of existing plant equipment from performing their intended safety functions.

## 2000 ANNUAL REPORT

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NSE 00-3-025 EHT, REV. 0

RESPONSE TIME EVALUATION FOR THE  
BORIC ACID HEAT TRACE REDUNDANT CIRCUITRY

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Description and Purpose

The purpose of this NSE was to evaluate and provide a more realistic requirement associated with the performance of the boric acid heat tracing and to specify when the redundant circuit would need to be placed back in-service following failure of the primary circuit.

Summary of Safety Evaluation

The allowable 15 minutes specified in the FSAR to have the redundant circuit be placed in-service following failure of the primary circuit was determined to be overly restrictive. The function of the system should be based on the temperature of the piping system to insure solubility of the boric acid solution. The Technical Specification required limit is 145°F with an alarm at 155°F. The 15 minutes referenced in the FSAR was based on the original insulation scheme which changed as part of modification DEM 88-3-230 in 1992. This new insulation scheme concluded that the system response should be based on the temperature to determine affected portion of the system operability. The boric acid system design is provided with redundancy to maintain optimum functionality. If failure occurs, corrective actions would dictate the required recovery action. The boric acid heat trace system is not safety related and no credit is taken for this system during or following a design basis accident or transient. This system doesn't have any safety related function. Therefore it is acceptable to use actual system condition for corrective action response time rather than using an overly restrictive specified time of 15 minutes and this does not represent an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 00-3-029 SP, REV. 0

JUSTIFICATION FOR REPLACEMENT OF  
CHECK VALVES SP-981, 982 AND 983

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Description and Purpose

The purpose of this NSE was to correct the FSAR to accurately reflect the current physical configuration of the "Sampling System" with globe valves which were originally shown as check valves.

Summary of Safety Evaluation

This safety evaluation justified the replacement of check valves SP-981, -982 and -983 with globe valves as an acceptable configuration which does not adversely affect the function or safety of the system. In general, a globe valve provides better back leakage protection than a check valve. The replaced valves do not affect the seismic integrity of the system and the materials and components were found appropriate for the system function/design.

This safety evaluation determined it acceptable to change the FSAR statement on Page 9.4-5 from "Check valves prevent gross reverse flow..." to "Appropriate valves...". As a result of these changes there are no unreviewed safety questions.

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NSE 00-3-033 SI, REV. 0

FSAR UPDATE FOR VALVE STEM LEAKOFFS

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Description and Purpose

The purpose of this NSE was to determine the safety significance of revising the section of the FSAR that states the recirculation valves will have stem leakoff connections piped to waste disposal.

Summary of Safety Evaluation

This safety evaluation corrected FSAR Section 6.2.2 regarding the lack of valve stem leak-offs on some of the safety injection valves. A list of criteria describing the valves of the Safety Injection System was included and is correct for all valves described. The changes are consistent with the original Westinghouse design criteria.

This change corrects contradictory configuration descriptions in the FSAR and does not create any unreviewed safety questions.

## 2000 ANNUAL REPORT

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NSE 00-3-038 CF/HA, REV. 0

USE OF AMMONIUM CHLORIDE FOR STEAM GENERATOR  
MOLAR RATIO CONTROL AT IP3

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Description and Purpose

The purpose of this NSE was to evaluate the injection of ammonium chloride solution into the condensate to adjust and control the sodium to chloride molar ratio in the steam generator bulk water so as to prevent the initiation of intergranular attack and stress corrosion cracking (IGA/SCC) and reduce crack growth rates in the Steam Generator crevices.

Summary of Safety Evaluation

This NSE determined that the injection of a small amount of ammonium chloride into the condensate will seek to maintain a near neutral environment in the steam generator crevices to prevent initiation of IGA/SCC, crack initiation, and reduce crack growth rates in steam generator crevices. This ammonium chloride does not change the Steam Generator water chemistry parameters listed in the FSAR. The addition of ammonium chloride solution to the Steam Generators did not identify any unreviewed safety concerns or Technical Specifications changes.

## 2000 ANNUAL REPORT

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NSE 00-3-039 SFPC, REV. 0

SPENT FUEL PIT LEVEL RE-EVALUATION

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Description and Purpose

The purpose of this NSE was to make the FSAR consistent with itself and the Technical Specifications with regards to the Spent Fuel Pit (SFP) water level of 26 foot water depth to 23 feet.

Summary of Safety Evaluation

The FSAR referred to a Spent Fuel Pit water depth of 23 feet over the tops of the fuel assemblies in some places and 26 feet in others. An actual SFP water depth of 26 feet was not practical to maintain, so all 26-foot depth references were evaluated. These analyses were associated with foreign object intrusion into the SFP and dose rate during fuel handling.

All analyses were found acceptable: 1) the foreign objects would not result in clad damage, even assuming a 6-foot water level reduction due to tornado effects, 2) the maximum dose at pool side during fuel handling with the SFP at minimum level would not be greater than 2.44 mr/hr. Although slightly higher than the original assumption of 2 mr/hr, this evaluation was accepted by the USNRC in its approval of Technical Specification Amendment 90, and fuel assembly drop analyses now reflect a water depth assumption of 23 feet. Therefore, the FSAR was revised to refer to a minimum water coverage of 23 feet over the top of the fuel assemblies. This change does not create any new unreviewed safety questions.



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NSE 00-3-040 ADMIN, REV. 0

NUCLEAR ENGINEERING ORGANIZATION CHANGES

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Description and Purpose

The purpose of this NSE was to evaluate the changes to the Nuclear Engineering organizational structure, as described in the IP3 FSAR.

Summary of Safety Evaluation

This NSE evaluated the changes involved in the re-alignment of the Nuclear Engineering Division in the Nuclear Generation Organization. These changes included reporting relationships, title changes, but have not eliminated any functional requirements. The changes are administrative in nature and do not involve plant equipment or operating conditions. They will not reduce the effectiveness of the management of activities or of the oversight of plant operations. Therefore, these changes do not involve an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 00-3-041 SP, REV. 0

JUSTIFICATION FOR KEEPING VALVES SP-529 THROUGH  
SP-533 CLOSED, AND SP-973 OPEN

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Description and Purpose

The purpose of this NSE was to evaluate changing the FSAR Fig. 9.4-1 which showed the position of valves SP-529 through SP-533 (Steam Generator Sample Quick Connection Isolation Valves) as normally open, and SP-973 (Sample Sink Drain Valve) as normally closed. This depiction was not consistent with the current physical system configuration where in valves SP-529 through SP-533 are normally closed, and valve SP-973 is normally open.

Summary of Safety Evaluation

This NSE justifies the change to the FSAR Figure 9.4-1 to depict the current physical position of the valves and the requirements of the respective check off list COL-SG-2, Rev. 4 and COL-SS-1, Rev. 15. The changes to valve position do not adversely affect the intended function of the sampling system or of any safety-related systems. Therefore, no unreviewed safety question is involved.

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NSE 00-3-042 CVCS, REV. 0

CORRECTION TO FSAR SECTION 6.7.1.2,  
"LIQUID INVENTORY" SUBSECTION

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Description and Purpose

The purpose of this NSE was to justify a correction to FSAR Section 6.7.1.2, "Liquid Inventory" subsection which incorrectly states that a low flow alarm would be actuated by a monitor on the outlet line of the Chemical and Volume Control System (CVCS) from the Non-Regenerative Heat Exchanger (NRHX).

Summary of Safety Evaluation

This NSE corrected the FSAR wording to delete reference to a low flow alarm that would actuate by a monitor on the outlet line of the CVCS from the NRHX to accurately reflect the plant's design.

If there is an actual tube side to shell side leak for the NRHX, the operators have other means of indication available.

This change was editorial only and provided consistency between the various plant documentation, configuration and causes no unreviewed safety question.

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NSE 00-3-043 SWS, REV. 0

REVISION TO FSAR SECTION 9.6.1,  
TABLES 9.6-1, 9.6-2, 9.6-2A AND FIGURE 9.6-1B

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Description and Purpose

The purpose of this NSE was to support a revision to FSAR Section 9.6-1, Tables 9.6-1, 9.6-2, and 9.6-2A, to reflect the results of the Service Water System Hydraulic Model Analysis of record. In addition, this evaluation corrected FSAR Figure 9.6-1B, an inconsistency with the SWS checkoff list and the Plant Equipment Data Base (PEDB).

Summary of Safety Evaluation

The current SWS Hydraulic model analysis provides documentation that the SWS is capable of supplying sufficient flows to all safety related users for all normal and off-normal modes of plant operation. These current results were to be reflected in the corresponding FSAR sections as the analysis of record.

The analysis confirms that the SWS can supply adequate flows to the EDGs and all other safety related users for all normal and post-accident modes of operation including single limiting active failures during injection and single active or passive failure during recirculation. These changes do not involve any unreviewed safety questions since the changes did not result in any reduction in the ability of the Service Water System to perform its intended safety function.

## 2000 ANNUAL REPORT

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NSE 00-3-046 SI, REV. 0

SI ACCUMULATOR DRAINING  
VIA THE SAMPLE SYSTEM

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Description and Purpose

This NSE evaluated statements pertaining to the acceptability of draining any Safety Injection (SI) Accumulators via line #339 (through the SI-893 and SI-896 series valves) to the Waste Disposal System (WDS) when the Reactor Coolant System (RCS)  $T_{avg}$  is greater than 350° F and using an existing SI Accumulator Sample line #69 for draining to the Sample Sink.

In addition, this NSE addressed FSAR text that states all the piping of the Safety Injection System was designated Seismic Class I.

Summary of Safety Evaluation

This evaluation made two changes to the plant operation. It restricts the use of line #339 for draining the SI Accumulators to the Reactor Coolant Drainage Tank (RCDT) when they are required operable as defined by Technical Specifications and it permits their draining via line #69 to the Sample Sink during any mode. Both changes only require procedural changes to become effective and require no physical work to the plant.

The seismic configuration of the SI System piping is predominately Seismic Class I with a few exceptions for non-Class I piping isolated from the safety-related portion of the SI System pressure boundary which are depicted on the flow diagrams.

These changes do not introduce, create, or increase the consequences of any accidents. They neither change the Security Plan, Emergency Plan, QA Program, Fire Protection Program, nor does it create a new release path to the environment. The Core Operating Limit Report is unaffected and this change does not create any unreviewed safety question.

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NSE 00-3-047, REV. 0

MAIN GENERATOR AND STATION AUXILIARY  
TRANSFORMER WATT-HOUR-METER REPLACEMENT

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Description and Purpose

This NSE evaluated the replacement of the existing Westinghouse electro-mechanical meters for the Main Generator and Station Auxiliary Transformers Watt-Hour-Meters (WHM) with solid state ABB switchboard meters.

Summary of Safety Evaluation

This safety evaluation determined it acceptable to replace the existing WHM Westinghouse electro-mechanical meters with solid state ABB switchboard meters which would reuse the existing FT-21 mounting cases and would not require any physical or electrical changes to the plant. All firmware would be handled in accordance with IP3 software Quality Assurance procedures.

As a result of this activity, FSAR Figure 8.2-2 was revised to delete the meter model designation. This change was editorial in nature and does not involve any unreviewed safety questions.

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NSE 00-3-051 IB, REV. 0

INSTRUMENT BUS 31 AND 32 SOLA  
TRANSFORMER REPLACEMENT

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Description and Purpose

The purpose of this NSE was to determine whether the implementation of the proposed Instrument Bus 31 and 32 transformer replacement design change constituted an unreviewed safety question.

Summary of Safety Evaluation

This design change replaced aging alternate supply transformers. The replacement of both sets of transformers was performed while the respective Instrument Buses were supplied from their normal static inverter sources. Temporary transformers were installed during replacement of the alternate supply transformers to ensure that an alternate supply transformer was available during the design change installation.

The replacement of these transformers does not increase the probability of occurrence or the consequence of a malfunction of equipment important to safety. The margin of safety as defined in the Technical Specifications is not reduced and no unreviewed safety questions exist.

## 2000 ANNUAL REPORT

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NSE 00-3-054 ADMIN, REV. 0

INDIAN POINT 3 (IP3) FSAR REVISION - QA PROGRAM

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Description and Purpose

This NSE described and evaluated changes to the IP3 FSAR to incorporate relocated Technical Specifications sections into FSAR section 17.2, 12.3, 12.4 and 12.5 to formally document auditing requirements for various programmatic audits that have been performed in the past at IP3, and incorporated an NRC-approved grace period on audit durations. It also addressed the requirements of the Code of Federal Regulations (CFR) changes to the Quality Assurance (QA) Program.

Summary of Safety Evaluation

This safety evaluation determined that the FSAR did not discuss the specific requirements for performing specific programmatic audits required by various CFRs such as Fitness for Duty, Emergency Preparedness, Security/Safeguards Contingency and Access Authorization. These changes to FSAR Section 17.2E.6.1 and 17.2E.6.2 are Licensing requirements and did not need to be approved by the NRC. Additionally, a 25% grace period on the completion of audits (not to exceed 90 days) was allowed. The grace period is not applicable to the aforementioned CFR audits. This change was previously approved by the NRC for another utility and also did not need to be approved. This was an administrative change that clarified the FSAR and provides an additional level of detail needed for implementation which was not included in the FSAR. These changes provide clarification to the FSAR and provide guidance to perform audits in alignment with industry practices and to enable the QA staff to function more effectively.

The TS currently provides guidelines for performance of audits under the cognizance of the Safety Review Committee (SRC) and the QA Program, specified in Chapter 17.2 of the FSAR. As a result of the requirements for the audits being relocated to Appendix 17.2E.6 of the FSAR, there was no impact on the TS or Operation Specification (OS). Specific changes to the TS for relocation of Sections 6.5.2.8, 6.5.2.9 and 6.5.2.11 to Chapter 17 were justified by approval of Amendment #188 to the TS by the NRC. It is concluded that these changes to the FSAR are administrative in nature and do not involve an unreviewed safety question.



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NSE 00-3-057 RCS, REV. 0

FSAR UPDATE TO ADDRESS THE IMPACT OF  
4% PSV SETPOINT TOLERANCE ON IP3 OPERATION

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Description and Purpose

The purpose of this NSE was to evaluate the effects of operating Indian Point 3 (IP3) with Pressurizer Safety Valves (PSVs) at set-pressures that include a  $\pm 4\%$  tolerance.

Summary of Safety Evaluation

This NSE addressed PSV setpoint drift and uncertainty and supported the update to the FSAR to incorporate the Westinghouse safety evaluation results to reflect the  $\pm 4\%$  PSV setpoint tolerance on plant operation.

The PSVs provide protection from over pressurization of the Reactor Coolant System (RCS). Increasing the positive side of the tolerance load increases the allowable pressure at which the safety valves lift and reduces the margin to primary pressure limits. Lowering the allowable negative-tolerance does not adversely affect existing analyses. Pressurizer Power-Operated Relief Valves (PORVS) are assumed to be operable for events where more limiting analyses results are obtained as long as the PORV setpoint remains lower than the PSV setpoint.

Westinghouse's analysis demonstrated that the  $\pm 4\%$  PSV setpoint tolerance did not invalidate any of the existing conclusions in the FSAR. It required no physical change or plant procedural revisions. The  $\pm 4\%$  PSV setpoint tolerance was part of the Improved Technical Specification (ITS) change. There is no adverse impact on IP3 operation in all modes, and no unreviewed safety question results by implementing the  $\pm 4\%$  PSV setpoint tolerance.

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NSE 00-3-059 COMM, REV. 0

REPLACEMENT OF THE CONITEL TELEMETERING SYSTEM  
AND RETIREMENT OF INIVEN CABINET

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Description and Purpose

This NSE evaluated Design Change Package (DCP) 00-3-059 COMM for the removal and replacement of the existing Conitel equipment located on the 33 foot elevation of the control building and the "Retirement In Place" of the non-functioning Iniven system.

Summary of Safety Evaluation

This DCP replaced the Conitel system with a D20 Energy Control System (D20 ECS) manufactured by G.E. Harris. Along with the backup RFL signal transmission, the D20 ECS ensures reliable transmission of the existing signals sent to NYPA and the Consolidated Edison Energy Control Center (ECC).

In addition, this DCP also "Retired In Place" the non-functioning Iniven system which had been out of service for several years and no longer had any functional value.

As a result of this design change, FSAR Figures 7.7-1 and 8.2-9 were revised. These drawings identify equipment arrangement and Instrument Bus loads respectively. These changes simply document the revised equipment designation and circuit loading on the respective power sources and do not represent an unreviewed safety question.

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NSE 00-3-065 HVAC, REV. 1

REPLACEMENT OF CRDM FAN BLADES

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Description and Purpose

The purpose of this NSE was to evaluate installation of Design Change Package (DCP) 00-3-065 HVAC Rev. 1 for installing aluminum bearing equipment into the Vapor Containment (VC) and the two Control Rod Drive Mechanism (CRDM) cooling fans with four aluminum CRDM fan blades.

Summary of Safety Evaluation

This safety evaluation determined it was acceptable to replace the original steel CRDM fans with aluminum which help to extend component lifetime and improve reliability. This NSE reviewed the hydrogen-produced reaction of aluminum with the alkaline borate solution sprayed into the VC following a Loss of Coolant Accident (LOCA). It was found that the hydrogen that results from this reaction, accumulates gradually and combines with the reactions from other sources and is evaluated for inclusion to the limits which initiate the use of the hydrogen recombiners.

Since the original analysis of aluminum in the VC, some items have been removed and others have been added. The new Westinghouse analysis takes into account all known sources of aluminum including the additional four CRDM fan assemblies and it verified that the hydrogen produced in the post-LOCA environment is within the assumption of the design basis. The analysis concluded that it did not reduce the margin of safety as defined in the basis of any Technical Specification and that the installation of the aluminum CRDM fan units does not involve an unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 00-3-070, REV. 0

TECHNICAL REQUIREMENTS MANUAL

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Description and Purpose

This NSE evaluated the development and implementation of the Technical Requirements Manual (TRM) as part of the requirements for the conversion from Custom Technical Specifications (CTS) to the Improved Technical Specifications (ITS). It also evaluated the incorporation of the Operational Specifications (OS) into the TRM in order for the TRM to supersede the OS.

Summary of Safety Evaluation

This safety evaluation concluded that the implementation of the TRM, as part of the requirements for implementing the ITS, does not result in any changes to the ability of existing plant equipment from performing their intended safety functions and that no new unreviewed safety question exists as a result of its implementation.

## 2000 ANNUAL REPORT

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NSE 00-3-084 SWS, REV. 0

INSTALL TM 00-04570-07 TO DISABLE ISOPHASE BUS  
LOW WATER FLOW SWITCHES ALARM FUNCTION

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Description and Purpose

The purpose of this NSE was to evaluate the installation of Temporary Modification (TM) 00-04570-07. This TM disconnected the function of the Service Water (SW) flow indication alarm by lifting the wires for the Isophase Bus (IB) Cooling Fans Control Station at terminal block 807X, 808X, 809X, 8010X, 8011X, and 8012X which results in a requested change to FSAR Figure 9.6-1C.

Summary of Safety Evaluation

This TM disabled the existing low water flow switches function and made the associated annunciator window inoperative. During this time, due to the absence of flow indication, the temperature of the bus can be monitored by existing instrumentation. The existing bus temperature monitoring instrumentation provides an alarm at predetermined bus temperature and current Alarm Response Procedures (ARPs 23 and 008) direct any remedial actions. This change was temporary, and the work was implemented in a safe controlled manner. This change did not require any change in the methodology and processes that operate the plant. This TM did not involve an unreviewed safety question.

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NSE 00-3-089 IVSW, REV. 0

TEMPORARY MODIFICATION FOR  
ALTERNATE NITROGEN SUPPLY TO IVSW

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Description and Purpose

The purpose of this NSE was to evaluate TM 00-03291-03 using an alternate nitrogen (N<sub>2</sub>) supply of two three-bottle banks of nitrogen to supply the Isolation Valve Seal Water System (IVSWS) while repairing the N<sub>2</sub> supply header downstream of check valve IV-1622 and during the replacement of valves IV-1440 and IV-PCV-1076.

Summary of Safety Evaluation

This NSE concluded that the installation of two, three-bottle banks of nitrogen supply for the IVSW tank and the gas sealed penetrations, while portions of the nitrogen supply header to IVSWS are under repair, will not change the function of the normal N<sub>2</sub> supply. This configuration, taking into account the isolations required during the temporary modification installation, uses the two N<sub>2</sub> banks to serve as equivalent to the one bank supply during normal plant operation. It does not create any adverse affects to any Structures, Systems and Components (SSCs) and it does not create any unreviewed safety question.

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NSE 00-3-091, REV. 0

ENTERGY NUCLEAR NORTHEAST  
DAY ONE ORGANIZATION

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Description and Purpose

The purpose of this NSE was to evaluate the "day-one" changes to the organizational structure, as described in the IP3 and James A. FitzPatrick (JAF) Updated Final Safety Analysis Reports (UFSARs) as the result of the transfer of the Indian Point 3 and JAF operating licenses from New York Power Authority (NYPA) to Entergy Nuclear Operations, Inc. (ENO).

Summary of Safety Evaluation

This NSE determined that the changes to the organizational structure, as described in the IP3 and JAF UFSARs, are administrative in nature and do not involve plant equipment or operating conditions. The changes do not eliminate any functional requirements and they will not reduce the effectiveness of the management of activities or of the oversight of plant operations. Therefore, these changes do not create any unreviewed safety question.

## 2000 ANNUAL REPORT

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NSE 00-3-092 RCS, REV. 0

EVALUATION FOR THE  
MANSELL LEVEL MONITORING SYSTEM

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Description and Purpose

This NSE evaluated the installation of the Mansell Level Monitoring System (MLMS<sup>®</sup>) and the changes to the plant electrical and mechanical equipment required to implement the MLMS<sup>®</sup>.

Summary of Safety Evaluation

The MLMS<sup>®</sup> provides a highly accurate, reliable and redundant method to monitor the Reactor Coolant System (RCS) level. It utilizes two independent means for providing RCS indicated level. This system, supplemented with hand held UT devices, meets the requirements of Generic Letter 87-17 for operation at Reduced Inventory. Both independent channels utilize two computers each with Uninterrupted Power Supply (UPS) capable of supplying power for greater than 45 minutes. The mechanical and electrical interfaces required to implement MLMS were designed in accordance with original design codes and requirements and do not reduce plant safety. This system does not change the margin of safety, but adds an additional means to provide RCS inventory indication. No unreviewed safety question exists as a result of installing, testing and operating the MLMS.