

POWER AUTHORITY OF THE STATE OF NEW YORK

INDIAN POINT NO. 3 NUCLEAR POWER PLANT

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TELEPHONE: 914-739-8200



December 30, 1981
Docket No. 50-286
License No. DPR-64

Ronald C. Haynes, Regional Administrator
Office of Inspection and Enforcement
Region 1
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Code of Federal Regulations
10 CFR 50.59
Changes, Tests and Experiments

Dear Mr. Haynes:

The following constitutes the annual report on changes, tests and experiments for Indian Point 3 Nuclear Power Plant as required by 10 CFR 50.59.

The Code of Regulations 10 CFR 50.59 a. specifies that changes to the facility as described in the safety analysis report, changes in the procedures as described in the safety analysis report and conduct of tests or experiments not described in the safety analysis report may be made without prior Commission approval provided the proposed change, test or experiment does not involve a change in the technical specifications incorporated in the license or constitute an unreviewed safety question.

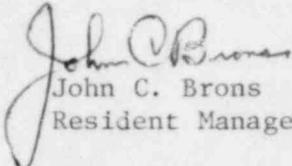
A description of such changes, procedures and tests performed at Indian Point 3 and a summary of the safety evaluations of each for the period of March 7, 1980 to December 31, 1980 are contained in Attachment 1. Each has been reviewed to ensure that the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report has not been increased, the possibility for an accident or malfunction of a different type than any evaluated previously in the

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safety analysis report has not been created, nor the margin of safety as defined in the basis for any technical specification has not been reduced. It was concluded that the changes, tests and experiments did not constitute an unreviewed safety question.

Very truly yours,


John C. Brons
Resident Manager

RAS/gg
Attachment

cc: Director, Office of Inspection and Enforcement (39 Copies)
c/o Distribution Services Branch, DDC, ADM
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Robert Young, Acting Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Resident Inspector T. Kenny

ATTACHMENT I

Power Authority of the State of New York
Indian Point 3 Nuclear Power Plant
Docket No. 50-286

A. Modification and Evaluations
79-03-01 FP - Fire Protection - CO₂ System

This modification involved the installation of a low pressure CO₂ system which provides fire protection for the turbine generator bearings.

This modification improves the fire protection capability of the plant and the American Nuclear Insurers (ANI) has concurred in this change.

This system is tied into the Plant Fire Detection and Alarm System which annunciates locally and in the Control Room. Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was fabricated using standards equal to or better than those used during original installation. This modification has therefore been deemed to not involve an unreviewed safety question.

79-3-016 FP - Turbine Building Fire Protection Modification

This modification involved the installation of new Fire Protection and Detection Systems in the Turbine Building. The areas over which they provide fire protection are provided by two types of systems, ie. Wet-Pipe Sprinkler Systems and Deluge Water Spray Systems.

The Wet-Pipe Sprinkler Systems provide fire protection to the following areas:

1. Turbine Generator Building elevation 15' south half.
2. Turbine Generator Building elevation 15' north half.
3. Turbine Generator Building elevation 35'-9".

These systems are tied into the Plant Fire Detection and Alarm System which annunciates locally and in the Control Room.

The Deluge Water Spray Systems provide Fire Protection to the following areas:

1. Turbine Generator Building - Turbine Governor Housing and bearings as back-up system to the CO₂ system.
2. Turbine Generator Building - Boiler Feed Pumps as a back-up system to the CO₂ system.
3. Turbine Generator Building - Outside wall of Main and Auxiliary Transformers forming a water curtain between the transformers and the Turbine Building.
4. Turbine Generator Building - Pipe Bridge to Auxiliary Feed Pump Building forming a water curtain between the Pipe Bridge and the Turbine Building.

This modification improves the fire protection capability of the plant and the American Nuclear Insurers (ANI) has concurred in this change.

These systems meet the requirements of the National Fire Protection Association (NFPA) Standards No. 13, 15, and 70. Fabrication of piping meets the requirements of the standard code for Pressure Piping, ANSI B31.1. The hangers and supports in safety-related buildings are designed to Seismic Category I criteria as specified in the FSAR. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed using standards equal to or better than those used during original construction. This modification has therefore been deemed to not involve an unreviewed safety question.

79-03-021 CVCS - Charging Pump Suction and Discharge Pulsation Dampeners

This modification involves the installation of pulsation stabilizer separators in the 4" suction lines and the installation of pulsation dampeners in the 3" discharge lines of the positive displacement boric acid charging pumps No. 31, 32, and 33 to reduce hydraulic pulsations during operation. Presently the stabilizers/separators portion of the modification is installed in all three pumps.

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was designed considering both seismic and thermal growth factors. This modification was fabricated using standards equal to or better than those used during original installation. The modification has been therefore deemed to not involve an unreviewed safety question.

79-03-027 EL - Provide Battery and Inverter to Power Instrument Bus Fed By Outside Power

The purpose of this modification was to install battery, inverter, DC distribution panel, auxiliary and associated equipment in order to have Instrument Bus 34 be supplied by a battery backed inverter system.

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was fabricated using standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

79-03-029 PW - Install Demineralized Water Header Inside Containment

The installation of the demineralized water header provides a system for both hot (decontamination) water, cold (Hydrostatic Testing and Flushing) water, and standby fire protection capabilities.

This modification enhances the fire protection system and does not degrade the security plan or system integrity. Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was designed considering both seismic and thermal growth factors. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was fabricated using standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

79-3-031-CB - Equipment Passage System through Containment Airlock at Elevation
95'-0"

This modification consisted of the installation of a flat car/dolly rolling on two (2) rails to allow easier passage of heavy equipment into containment during outages. The rails will be carried by structural frames temporarily bolted to the existing structure. The structural assemblies provide a single level, continuous support for the dolly rails enabling the dolly to be rolled manually from the exterior roadway to the interior of the Containment where the Polar Crane can be used to pick up the equipment on the dolly. This system is rated to permit the movement of equipment up to five (5) tons through the airlock.

The rails are spliced at three (3) locations. Two (2) of these are at the interior and exterior airlock doors where they can be quickly removed as required to permit the closing of the doors. Portable stairs are installed inside and outside the Containment Building for access to the walkway through the airlock.

This modification was fabricated using standards equal to or better than the original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

79-03-057-CF Inject Boric Acid into Steam Generators

This modification involved the installation of piping, valves, etc., from the existing chemical feed system to the main feedwater headers. This will allow addition of boric acid into the secondary side of the steam generators via the main, as well as, auxiliary feedwater headers.

Westinghouse Electric Corporation recommended the addition of boric acid to the steam generators to reduce the rate and extent of steam generator tube denting.

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was designed considering both seismic and thermal growth factors. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was fabricated using standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

79-3-075 FP-Fire Protection - Cable Tunnel

This modification involved the extension of the existing dry pipe pre-action system serving elevations 43'-0" and 33'-0" of the electrical cable tunnel. It covers the upper levels of cable trays which were not covered by the original system, the cable trays in the penetration area, and extend further into the cable spreading room entry area. New distribution headers parallel to the existing ones were installed and the original headers remain unchanged.

This modification complies with NRC Branch Technical Position 9.5.1 and the American Nuclear Insurers (ANI) have concurred in this change.

This system is tied into the Plant Fire Detection and Alarm System which annunciates locally and in the Control Room. This modification meets the requirements of the National Fire Protection Association (NFPA) Standard No. 13 and Branch

Technical Position BTP 9.5.1. New portions of the system were designed to be compatible with the existing portion of the system. All hangers and supports in safety related buildings are designed to seismic Category I criteria. This modification was installed using standards equal to better than those used during original construction. This modification has been therefore deemed to not involve an unreviewed safety question.

79-3-086 FP-Fire Alarm and Detection System Inside Containment

This modification involved the installation of conduit, cable and seven (7) photo-electric smoke detectors inside Containment. These smoke detectors were installed in the following locations:

1. One at each reactor coolant pump.
2. One in the electrical penetration area
3. Two over the cable tray on EL 54'6".

This modification complies with NRC Branch Technical Position 9.5.1 and the American Nuclear Insurers (ANI) have concurred in this change.

This system is tied into the Plant Fire Detection and Alarm System which annunciates locally and in the Control Room. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed using standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

79-3-087 FP- Fire Protection System - Fire Pump House Electrical Installation and Fire Pump Controls

This modification involved the installation of the following major electrical equipment in the Fire Pump House:

1. One (1) 250 horse power motor driven fire pump.
2. Two (2) 7.5 horse power motor driven jockey pumps.
3. Four (4) 200 Kilo-Watt tank heaters
4. One (1) Controller for the motor driven fire pumps.
5. One (1) Controller for the diesel driven fire pump.
6. Two (2) Motor control centers designated as "MCC G" and MCC H".
7. Control Panel.

This modification helps to satisfy the three major concerns regarding the overall fire protection scope:

1. To have a completely independent fire protection system for the IP-3 Site.
2. To comply with NRC Branch Technical Position 9.5.1.

3. To comply with requests of American Nuclear Insurers (ANI)

This system is tied into the Plant Fire Detection and Alarm System which Annunciates locally and in the Control Room. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed using standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

79-3-105 EL-New 480 V Feeders Associated with the Extension of Electrical Facilities

This modification involved the installation of the 480 Volt Feeders that are associated with the extension of the existing electrical distribution system and the installation of a 480 volt manual transfer switch for the Fire Pump Motor Supply Circuit.

The 480 Volt Feeders for the Fire Protection System are from the 480 volt buses 312 and 313 to the 480 volt Motor Control Centers G and H respectively. Buses 312 and 313 are located in the Turbine Hall and Motor Control Centers G and H are located in the Fire Pump House. The motor driven fire pump normal feed is bus 312 and the emergency feed is 480 volt bus 5A. These feeders run through the new manual transfer switch which is used to manually transfer the feeders to the motor driven fire pump from the normal feed to the emergency feed and from the emergency feed to normal feed. The electrical feeds to the remaining equipment installed as part of the additional facilities program are supplied through individual breakers.

This modification was designed and installed using standards equal to or better than those used during original design and installation. This modification meets the requirements of NRC Branch Technical Position 9.5.1 for the power supplies to the motor driven fire pumps. This modification has been deemed to not involve an unreviewed safety question.

79-03-123 EL-Isolation Modification of Safety Related Components for Fire Protection

This modification was made in response to NRC Fire Protection positions. These positions, basically, required modifications which will assure a safe shutdown capability in case of fire damage to cables in the Switchgear Room or the Cable Spreading Room in the Control Building.

The modifications consisted of fire retardant barriers installed between cable trays, isolating switches to isolate the control circuits of Diesel Generator No. 31 and the control circuits for feeder breakers to 480 volt buses 2A and 3A and the tie breaker between the two busses.

The conduit and cable installations observed separation criteria thus maintaining electrical integrity. The installation of the Fire Retardant Barriers takes into consideration the seismic criteria of the cable trays. The modification was designed and installed using standards equal to or better than those used during original installation. The modification has been therefore deemed to not involve an unreviewed safety question.

79-3-132 SGBD-Steam Generator Blowdown Sampling System Modification

This modification involved the installation of a recirculation path to route steam generator blowdown sample flow to the Steam Generator Blowdown Tank. Efforts to minimize waste effluent determined that a substantial reduction in liquid effluent would be achieved by routing sample flow to the Steam generator Blowdown Tank in lieu of the sample sink drain. This recirculation path includes four additional sample heat exchangers which were installed in series with the existing sample heat exchangers, the piping, and valves necessary to properly route the effluent to the Steam Generator Blowdown Tank.

This modification was designed and installed using standards equal to or better than those used during original construction. This modification has therefore been deemed to not involve an unreviewed safety question.

80-3-118 FP- Fire Alarm and Detection System

The purpose of this modification was to do the following:

1. To disconnect the diesel generator building fire protection water flow alarms and the fire valve tamper alarms from the existing control and alarm circuits and permanently rewire and reconnect them to the appropriate alarm zone points on the Fire Display Control Panel (FDCP) in the control room.
2. To disconnect the three diesel generator building thermostat alarms from the existing alarm circuit and permanently rewire and reconnect them to 3-alarm zone points in the Fire Display Control Panel "FDCP" in the control room.

This modification consisted of (1) disconnection of 2-valve tamper switches, 1-water flow switches, and 7 thermostats for each of the three diesels; (2) Reconnection of the wires of the 6-tamper switches and 3-water flow switches to the appropriate zone alarms of the Fire Display Control Panel (FDCP) in the control room; and (3) reconnection of the wires of the 21-thermostats to zone alarms #21, #25 and #29 in the Fire Display Control Panel ("FDCP") in the control room.

This modification complies with NRC Branch Technical Position 9.5.1 and the American Nuclear Insurers (ANI) have concurred with this change.

This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-019 FP-Fire Alarm and Detection System

The purpose of this modification was to reconnect the electrical connections for Deluge Control Circuits from their existing Deluge Valve Control Panels (DVCP) to the appropriate zones on the Fire Display Control Panel (FDCP) in the Control Room.

The above changes are required to consolidate all fire protection controls and monitoring on the new FDCP.

This modification consisted of reconnecting the following equipment:

- (1) Existing Pressure Alarm Switches, Deluge Valve Solenoid Valves, tamper switches on gate valves and auxiliary relays for the Deluge Valve Control Panels for the main and auxiliary transformers.
- (2) Existing Pressure Alarm Switches, Deluge Valve Solenoid Valves, tamper switches on gate valves and a new auxiliary relay for each of the Deluge Valve Control Panels for Boiler Feed Pump Oil Console, Hydrogen Seal Oil Unit, and Lube Oil Reservoir and Storage Tank.
- (3) Existing tamper switches on gate valves, existing auxiliary relay box for the DVCP for the Deluge Valve Control Valves in the upper and lower electrical tunnels.

80-3-020 FP-Fire Control and Alarm System CO₂ System Electrical and Instrumentation Installation

The purpose of this modification was to complete the physical and mechanical installation of all electrical and instrumentation items and complete external wiring for equipment for the CO₂ System and fire dampers associated with the CO₂ system.

This modification consisted of mechanical and physical installation of the electrical equipment for the CO₂ system and fire dampers in the following areas:

1. 3 Diesel Generator Rooms
2. Control Building (El. 15'0")
3. Cable Spreading Room in Control Building (El. 33'0")
4. Battery Rooms

The portions of the CO₂ system that have not been completed are for the following equipment:

1. Turbine Generator
2. Generator Purge System
3. Main Boiler Feed Pump #31
4. Main Boiler Feed Pump #32

This modification complies with NRC Branch Technical Position 9.5.1 and the American Nuclear Insurers (ANI) have concurred with this change.

This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-032 WDS-G-Vent Header Loop Seal Drain

The purpose of this modification was to remove the liquid waste buildup from the gaseous waste system vent header.

This modification involved the installation of two (2) drain valves into the low points of the unintentional loop seals, and draining to individual drain tanks. These valves will be left in the open position, and any moisture will drain by gravity into the drain tanks. The drain tank will have a level gauge to determine tank level. Periodically, an operator will open the drain valves on the tanks and drain to the floor drain, which leads to the waste disposal system.

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-034 AFW-D.C. Powered Lighting for No. 32 Auxiliary Boiler Feed Pump

The purpose of this modification was to provide D.C. powered lighting at the steam driven No. 32 auxiliary boiler feed pump as directed by the Nuclear Regulatory Commission Confirmatory Order dated February 11, 1980.

There are three D.C. powered lighting fixtures in the Auxiliary Boiler Feed Pump area to provide lighting to enable manual operation of No. 32 Auxiliary Boiler Feed Pump during loss of power incident. Two fixtures are in the pump area and one outside the north door. Each lighting fixture is an emergency battery operated lighting unit. Each unit consists of a battery charger, two 25W sealed beam heads and Exide B-2-115 12 volt battery. The battery charger operates from a 120 volt AC source. The beams can be aimed manually in any direction. The units are located approximately 8 ft. above the finished (18'-6" El.) floor.

This modification was designed considering seismic factors. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-037 FP-Upgrading of existing Electrical Penetration Fire Stops

The purpose of this modification was to install new fire seals which pass ASTM-E-119 3-hour burn tests in the existing electrical conduit penetrations.

Penetrations that were up-graded under this modification were limited to those in the walls separating the Control Building from the Turbine Building and the Diesel Generator Building and in the walls between the Diesel Generator Rooms.

Seals in the existing penetrations consisted of several different materials and designs. The work performed involved complete removal of all existing penetration material from the seals and installation of 3-hour rated fire seal system. The general configurations of the 3-hour fire stops consists of ten (10) inches of silicone foam plus high purity alumina damming material. A one (1) inch thick dam was used on each side of the wall penetration seals. The annular space between the cable and the inner surface of a conduit was filled with silicone foam up to 9-1/2" deep, with 1" damming on either side, there are 2 such fire stops per each conduit run passing through a wall penetration. These fire stops will prevent propagation of cable fire from one side of the wall to the other side of the wall.

This modification helps to satisfy the two major concerns regarding the overall fire protection scope.

1. To comply with NRC Branch Technical Position 9.5.1.
2. To comply with requests of American Nuclear Insurers (ANI)

This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-041 FP Diesel Generator and Control Building Door Alarms

This modification consisted of adding 12 magnetic type door switches to various doors in the Diesel Generator Building and Control Building. The opening of a door will annunciate in the control room on the Fire Display Control Panel (FCCP) to alert the operator of a breach of a fire door.

This modification helps to satisfy the two major concerns regarding the overall fire protection scope.

1. To comply with NRC Branch Technical Position 9.5.1.
2. To comply with requests of American Nuclear Insurers (ANI)

This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-049-ESS Automate Containment Isolation Valves and Install Phase A Signal to Containment Isolation Valves

In accordance with the automatic containment isolation concerns of NUREG-0578 this modification automated two existing manual containment isolation valves and added a phase "A" isolation signal to these as well as two other automatic containment isolation valves.

Two existing manual valves, 550 and 1610, were replaced with air operated valves and provided with a phase "A" isolation signal. Two existing air operated valves, 863 and 959, were provided with a phase "A" isolation signal.

This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-058-ESS Modify Power Supply to Valves 548 and 1788

The purpose of this modification was to revise the power supplies to Valves 548 and 1788 to meet existing plant design criteria.

This modification consisted of the installation of relays, cabinets, and wiring in order that Valves 548 and 1788 will be electrically powered from different power supplies other than those for Valves 549 and 1789. The power supply for Valves 548 and 1788 will be 125 V.D.C. from distribution panel 32, Circuit No. 20. Connections and terminations of specific wiring were done inside the Gas Analyzer Cabinet, "SN" Panel and "SO" panel. A relay cabinet was mounted along side the Gas Analyzer Cabinet where the relays for 548 and 1788 were located. The relays will be energized or de-energized through a terminal block also mounted in the relay cabinet. This terminal block is located in the Gas Analyzer Cabinet.

This modification was designed considering original separation and single failure criteria thus maintaining the integrity of electrical separation. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-072 FP- Fire Wall Partition Separating the Cable Spreading Room
from the Electrical Tunnels

This modification involved the installation of a three (3) hour fire rated seismic Class I partitioning wall installed on the 33 ft. elevation of the Control Building. This wall separates two (2) distinct fire zones, the Cable Spreading Room and the Cable Tunnels.

The installation of this partitioning wall satisfies two (2) requirements:

1. Provide 3 hour fire rated barrier between two (2) distinct fire zones (Cable Spreading Room from Cable Tunnels).
2. In the event of activation of the CO₂ System in the Cable Spreading Room, the wall will keep the CO₂ contained. Unlike the Cable Spreading Room which has a CO₂ Fire Protection System, the Cable Tunnels are protected via a Dry Pipe Pre-Action Sprinkler System. Without this partition, the CO₂ System might be ineffective in the cable spreading room.

The wall consists of 3/16" Steel Plate bolted on both sides of a steel channel frame with a 3 hour fire rated door providing access to, from the cable tunnels. The wall is designed to Seismic I (DBE) structural requirements. Addition of the wall will not impair or affect the Control Building in any way from a structural standpoint. The steel is coated externally on both sides with a minimum of 2 inches of UL approved sprayed fire proofing material in accordance with 3 hour column rated design.

In addition, the cable penetration through the wall is filled with at least six (6) inches of silicone elastomer. To insure that the door is in the closed position, it shall be electrically monitored from the Fire Display and Control Panel (FDCCP) in the Control Room.

This modification helps to satisfy the two major concerns regarding the overall fire protection scope.

1. To comply with NRC Branch Technical Position 9.5 1.
2. To comply with requests of American Nuclear Insurers (ANI)

This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-081 WDS-L-Liquid Radwaste-Interconnections for New Facility

This modification involved a core bore in reinforced concrete and the installation of piping, tee's and isolation valves in the existing liquid radwaste holdup influent lines at the point of interconnection with the piping to the proposed new holdup facility.

The Waste Holdup Tank No. 31 is fed from three main sources of liquid radwaste. Of these three, two will be interconnected with the proposed new Waste Holdup Tanks to be added at a later date. In order to minimize impact on construction of the new facility and on plant operation, the interconnections were made as a separate modification. The inter-connections have included isolation valves and pipe caps to maintain the pressure boundary of the existing system.

The isolation valve installed in each branch connection will be maintained closed and the pipe cap will remain welded in place until completion of the new holdup facility, when these branch lines will be connected to the new Waste Holdup Tanks.

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was designed considering seismic factors. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-086FP-Upgrade Control Room Door to Three Hour Fire Rating

This modification involved the revisions which have been made to the Control Room door to upgrade it to a three hour equivalent fire rating. The present door is composed of bullet resistant steel and has a bullet resistant glass window.

A plate is located above the window and connected to a hinge by means of a fusible link. In event of a fire, the temperature outside the Control Room door would melt the fusible link at 160°F and the plate would fall into a channel covering the glass. This would provide protection from fire in the turbine building. This plate will give the door an equivalent fire rating of three hours and thus satisfy the fire protection requirements for the Control Room door.

This modification complies with NRC Branch Technical Position 9.5.1 and the American Nuclear Insurers (ANI) have concurred with this change.

This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-087H2-Hydrogen Tube Storage Relocation Interconnection

This modification involved the installation of piping, fittings and valves for an interconnection in the hydrogen gas system to facilitate relocation of the hydrogen tube storage facility.

Three valves were installed in the hydrogen supply line from the existing hydrogen storage facility. This configuration provides a branch connection to allow future relocation of the hydrogen storage facility without requiring a plant outage for the piping tie-in.

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-091 WDS-L-Reactor Pit Water Level Alarm

This modification consisted of the installation of a level switch at the Reactor Pit to provide two water level alarms at the Control Room.

The level switch was installed on the west side of the reactor pit. The mounting brackets, and supports associated with the switch were seismically designed. Two alarms are provided at the Central Control Room (CCR). The first alarm point is activated when the water level reaches 2.5" and the second at 6".

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was designed to seismic criteria. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-093 WDS-L-Containment Sump Overflow Indication

This modification consisted of the installation of a solid state, capacitance sensing point-type (on/off) level sensor (Princo Instruments, Inc. Model L-1540 Remote Point Level Control) at the Containment Sump to provide a water overflow alarm at the Central Control Room (CCR).

The overflow indication system consists of the following components:

1. A sensing head and associated probe to be mounted at the edge of the Containment Sump.
2. A remote control unit contained in a weatherproof enclosure.
3. A 115 Volt AC Westinghouse isolation relay, type BFF31F.
4. A 24 Volt AC Struthers-Dunn interposing relay (DUNCO B1XB11G10) which was located on panel SBR in the CCR.

The sensing head and the remote control unit are connected by a multiconductor cable. The remote control unit and the isolation relay were mounted inside a heavy duty NEMA 4 enclosure located just outside the crane wall.

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. This modification was designed considering seismic factors. This modification was designed considering original separation criteria thus maintaining the integrity of electrical separation. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-101 WDS-L-Replacement of Reactor Cavity Sump Pumps

The purpose of this modification was to replace the existing two Reactor Cavity Sump Pumps with updated model pumps.

The existing power and control cable from MCC #38 compartments 5A and 5B to existing local junction boxes were retained to serve the new pump motors. New cable with the new pumps was installed from the motors to existing junction box. The existing control stations were retained. New red and green status indicating lights were installed on the door of each sump pump MCC compartment. A red indicating light "Pump #1 on" was installed on panel SAF at the control room.

Welding on this modification was accomplished using appropriate plant specific procedures based on applicable codes. The modification was designed considering seismic factors. This modification was installed in accordance with standards equal to or better than those used during original installation. This modification has been therefore deemed to not involve an unreviewed safety question.

80-3-106 CB-Prevention of Damage Due to Water Leakage Inside Containment

The purpose of this evaluation is to summarize the results of an investigation of equipment, controls, and operating procedures and completed modifications, and provide basis for continued safe operation of IP3NPP in response to IE Information Notice No. 80-37 "Containment Cooler Leaks and Reactor Flooding at Indian Point Unit 2".

The containment sump under normal operation collects water from various drains within containment. This water is then pumped to the waste holdup tank when the sump level reaches the actuation level on the sump pump float switches. The sump pump flow meter measures instantaneous flow (an indication of proper pump performance) while the totalizer measures cumulative flow, which is used to indicate changes in sump accumulations.

When the level in the containment sump increases to the float switch actuation level, one sump pump will start. If the level continues to increase, the second pump starts. There is constant containment sump level indication provided in the Control Room via two independent level indicators. Also, through use of the containment sump flow meter and totalizer, which is logged every shift, any increase in sump accumulation because of a leak would be detected. If the containment sump-level should approach an overflow condition, either because the two pumps cannot keep up with the leak or due to failure of both pumps, an alarm will annunciate in the Control Room via an additional level indicator installed in the containment sump. At this point water will overflow into the normally empty recirculation sump which will be indicated by the level sensors in the control room.

The containment fan cooler condensate drains from the cooling coils, are collected and flow into a vertical standpipe slotted Weir System. The flow rate from the fan units are measured, based on the water depth flowing over the Weir. If the drainage rates for all five units are nearly the same, it can be concluded that their water is condensate from the containment atmosphere. A particular unit with a high drainage rate, with respect to the other units, is indicative of a possible leak in one of the cooling coils. In series with each transmitter signal is an alarm for "C.B. Fan Cooler Cond. High Level". The affected unit can be determined by individually monitoring the drainage flow from each unit using a rotary selector switch.

Water collecting in the reactor vessel sump is pumped out via two sump pumps, each pump discharging into an individual check valve that joins a common header and discharges into the containment sump. The reactor vessel sump is normally kept dry. Newly installed level alarms in the reactor vessel sump will annunciate in the Control Room if water should accumulate in this sump. Also, an indicating light located in the control room will indicate when reactor vessel sump pump number 31 is running.

The containment sump and reactor vessel sump both have two pumps, therefore a double failure is required to lose pumping capability. The containment sump pumps are actuated via two separate independent float switches. Thus the loss of one float switch will not stop pump capability. There are two independent level indicators plus a separate overflow level indicator installed in the containment sump. The reactor vessel sump has a dual alarm level indicator with an indicating light to inform the operator when No. 31 pump is running. With the installation of the multiple level indicator in conjunction with operator training, equipment inspection, operation review, and modifications, it is deemed that reasonable and attentive action has been taken to preclude an event like the one described in IE Notice 80-37 from occurring.

It has been therefore deemed that the subject of this evaluation does not involve an unrevised safety question.

II. Procedures

There were no special procedures required to be reported during this period.

III. Test And Experiments

There were no special tests or experiments required to be reported during this period.

B. Summary of Safety Evaluations concerning Organizational Changes

The original headquarters structure for management and technical support for Indian Point 3 Nuclear Power Plant are contained in Section 12.1.1 of the Final Safety Analysis Report (FSAR) and the Facility Operating License (FOL) Section 6.2 of Appendix A (Technical Specifications) and Section 5.6 of Appendix B (Environmental Technical Specifications). The FOL was amended as applicable to reflect the current management structure changes as they occurred.

The following Safety Evaluations were performed to provide the basis for determining whether or not the changes involved an unreviewed safety question pursuant to 10 CFR 50.59:

1. NSE-NYO-022, "Safety Evaluation-Authority Management Title Change", dated 3/26/80, relates to the promotion of Mr. J. D. Leonard, Resident Manager of the J. A. FitzPatrick Nuclear Power Plant, to the position of Assistant Chief Engineer-Design and Analysis in the New York Office.
2. NSE-NYO-003, "Safety Evaluation - Authority Management Title Changes", dated 4/4/80, relates to the following title changes:

Paul J. Early from Assistant Chief Engineer-Projects to Vice-President and Assistant Chief Engineer-Projects

Paul Koshiashian from Assistant Chief Engineer-Construction Supervisor to Vice-President and Assistant Chief Engineer-Project Services

John D. Leonard from Assistant Chief Engineer-Design and Analysis to Vice-President and Assistant Chief Engineer-Design and Analysis.
3. NSE-NYO-004, "Safety Evaluation - Authority Management Title Change", dated 4/25/80, relates to the change in title for Mr. Peter W. Lyon from Manager-Nuclear Operations to Senior Vice President-Nuclear Generation.
4. NSE-NYO-005, "Safety Evaluation - Authority Management Change", dated 6/4/80, relates to the promotion of Mr. J. P. Bayne, Resident Manager of Indian Point 3 to the position of Senior Vice President-Nuclear Generation.
5. NSE-NYO-006, "Safety Evaluation - Authority Organization and Management Title Changes", dated 6/11/81, relates to changes in the organizational structure for management and technical support of the nuclear facilities. The Licensing and Project Engineering Groups are shifted from the Engineering Department to the Nuclear Generation Division of the Power Operations Department. The Director-Quality Assurance and the Safety Review Committee Chairman will report to the Executive Vice President and Director of Power Operations.
6. NSE-NYO-007, "Safety Evaluation - Authority Organization and Management Title Changes", dated 9/25/80, related to the creation of a new department, entitled "Procedures and Performance", under an Executive Vice President reporting to the President and Chief Operating Officer.
7. NSE-NYO-008, "Safety Evaluation - Authority Organization and Management Title Changes", dated 12/18/80, relates to the creation of a new position, "Manager - Radiological Health and Safety", reporting directly to the Senior Vice President-Nuclear Generation.