1986 REPORT

OF

FACILITY CHANGES, TESTS AND EXPERIMENTS CONDUCTED WITHOUT PRIOR APPROVAL

SECTION A COMPLETED ENGINEERING WORK REQUESTS (EWR)

SECTION B COMPLETED STATION MODIFICATIONS (SM)

SECTION C COMPLETED SPECIAL TESTS (ST) AND EXPERIMENTS

R.E. GINNA NUCLEAR POWER PLANT
DOCKET NO. 50-244
ROCHESTER GAS AND ELECTRIC CORPORATION

DATED DECEMBER 11, 1986

8612170308 861216
PDR ADOCK 05000244
K PDR

SECTION A - COMPLETED ENGINEERING WORK REQUESTS (EWRs)

This section contains a description of modifications in the facility as described in the safety analysis report, and a summary of the safety evaluation for those changes, pursuant to the requirements of 10CFR50.59(b).

The basis for inclusion of an EWR in this section is closure of the completed modification package in the Document Control Department. It is noted that in some cases, portions of these EWRs have received closure in previous years.

EWR 1444 UNDERVOLTAGE RELAY MODIFICATION

The modification described below has two principal purposes. The first is to add a Second Level (SL) of undervoltage protection relative to the emergency power systems for operating reactors. The Second Level system will detect degraded safeguards bus voltages and transfer to the onsite source preserve safety system capability and prevent equipment degradation.

The second purpose is to upgrade the existing system's tolerance of single component failures by providing greater redundancy.

The second level relays will detect a degraded safeguards bus voltage and will automatically initiate the disconnection of off-site power sources, start the diesel generators and program the safeguards loads onto the bus in the event of a safety injection signal.

The first event that has been analyzed for this modification are the consequences of a complete loss of all a.c. power and/or a degraded a.c. power source, while the reactor plant is at power.

The second level modification is designed to detect and correct a degraded offsite system voltage.

The use of coincident logic will upgrade the existing loss of voltage systems tolerance of single component failure by providing greater redundancy.

With the addition of the second level relays, the reliability of the sequencer start logic using only buses 14 and 16 will be at least equal to that of the existing system using all four buses.

Seismic Category I standards will be imposed on components of this modification thus mitigating the consequences of equipment failure during or after a seismic event.

The d.c. control voltage for each train will be modified so that it is fed from a preferred battery source and will use the second 1E battery system as a backup source. Presently each train has its primary and backup undervoltage systems fed from a single battery system.

The modification does not increase the possibility or impact of a fire.

It has been determined that:

(a) the margins of safety during normal operations and transient conditions anticipated during the life of the station are not reduced and

(b) the structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

EWR 1850 FIRE BARRIER PENETRATION SEALS

In accordance with the NRC Fire Protection Safety Evaluation Report, the following modifications were performed.

The opening between the floor of the east cable vault and the sheet metal barrier separating power cables of the two diesel generators will be provided with a silicone foam seal to prevent the passage of combustion products from one side of the barrier to the other.

Piping and duct penetration seals of fire barriers will be upgraded to fire resistance ratings commensurate with the hazards on both sides of the barriers.

The construction joints between containment and the surrounding buildings will be modified to provide fire resistance commensurate with the hazards in the area.

Locations modified were:

Auxiliary Building Zones 1-3
Intermediate Building Zones 1-8
Mechanical Equipment Room Zone 1
Battery Room A Zones 2, 3
Cable Spreading/Relay Room Zone 4
Computer Room Zone 5
Control Room Zone 6
Diesel Room 1A and 1B Zone 1
Diesel Room 1A and 1B Cable Vault Zone 2
Screen House Basement Zone 1
Screen House Main Floor Zone 2

The function of fire barrier penetration seals is to prevent communication of fire effects (heat and combustion products) across fire zone boundaries.

Where the fire barriers in which penetration seals are installed have ratings less than three hours, the seals have ratings equal to that of the barrier.

These modifications are all non-seismic. No new types of events are postulated. It has been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station are unchanged and the adequacy of structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are unchanged.

EWR 2145 AMMONIA ADDITION SYSTEM

The purpose of this modification is to modify the method by which ammonium hydroxide is utilized for feedwater chemistry control. The modification will result in an ammonia addition system which includes a common bulk storage tank containing a homogeneous, dilute solution of 29% NH_4OH. The modified ammonia addition system will be capable of supplying dilute ammonium hydroxide to: (1) the condensate system for feedwater pH control, (2) the feedwater system and steam generators for pH control during startup/shutdown and wet layup operations, and (3) the condensate polishers for resin bed regeneration.

The modified ammonia addition system will integrate all ammonia usage into a single system, and it will eliminate potential health hazards to operating personnel and control room operators.

Commercial strength (29%) ammonium hydroxide (NH_4OH) will be pumped from a 2,000 gallon delivery truck to the 4,000 gallon bulk storage tank.

The three positive displacement pumps will be located in the turbine building basement. The three existing atmospheric tanks shall be fitted with flexible diaphragms to limit ammonia release due to vaporization.

The new ammonia storage tank design was conceived to minimize potentially harmful effects to control room operators. The specific design concepts which limit control room exposure to ammonia are: (1) use of dilute ammonium hydroxide (29% solution) rather than anhydrous ammonia, (2) location of the tank on the northwestern side of the turbine building, (3) inclusion of a fluid containing moat to limit surface spill and thus dispersion rate, and (4) location of the storage tank as close to the turbine building as practical to limit the amount of piping exposure to the environment.

The design criteria requires that a full diameter tube rupture be considered. This requirement has no safety significance, but it was included to assure the integrity of the system design.

The margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 2419 MOTOR FIRE PUMP CONTROL POWER

Fuses and fuse block(s) will be installed in the Fire Pump Controller for the Motor Driven Fire Pump in the Screen House. The fuses will be in line with the control wires leaving the controller.

The function of the new fuses will be to protect personnel and equipment in the event of a fault to ground on either of the two control wires leaving the Fire Pump Controller.

Installation of fuses and fuse block(s) inside the Fire Pump Controller cabinet is adequate to ensure that these components will not damage safety-related equipment if dislodged by a seismic event.

The seismic mounting of the Fire Pump Controller will not be degraded by this modification. The additional loading imposed by the new fuses and fuse block(s) is considered negligible.

Wiring and equipment will be installed in compliance with the National Electrical Code.

All new wiring will be qualified to IEEE 383-1984 flame test requirements.

Existing fire barrier penetration seals will not be degraded since the modification is entirely within the Fire Pump Controller.

This modification does not affect the safe shutdown analysis of Appendix R requirements for the following reasons:

(a) The modification involves only the Fire Pump Controller, which is not identified as Safe Shutdown Equipment.

(b) Since the modification is entirely within the Fire Pump Controller, there is no effect on separation of existing circuits, associated circuits, or fire area boundaries.

It has been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 2421 HYDROGEN PIPING

This modification consists of building a small storage building detached from the Auxiliary Building for the storage of the necessary hydrogen for the volume control tank and hydrogen recombiner. A hydrogen line will be run from this building into the Auxiliary Building and will be tied into the existing hydrogen line to the volume control tank in the vicinity of the volume control tank. A hydrogen line will be run from the new storage building into the Auxiliary Building and will be tied into the existing hydrogen line to the hydrogen recombiner. This line will be in guarded pipe inside the Auxiliary Building as the existing line is.

This modification will remove the potential of a hydrogen fire in safety related areas of the Auxiliary Building.

Reduced flow or pressure will not happen as a result of this modification and hence the Chemical and Volume Control System Malfunction potential will not be affected.

By relocating the hydrogen supply to an area that has a fire barrier between it and the plant, the probability of a fire damaging equipment in the Auxiliary Building has been decreased.

The modifications done will not degrade any seismic structures or systems.

It has been determined that:

(a) the margins of safety during normal operations and transient conditions anticipated during the life of the station are not reduced and

(b) the structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

EWR 2507 PENETRATION VENTS/DRAINS

Presently some of the containment piping penetrations do not provide for draining fluid away from the containment isolation valves because these penetrations have either check valves without pipe drains or piping configurations which form loop seals.

In order to facilitate the containment leakage testing in accordance with Appendix J to 10 CFR Part 50, the fluid systems which penetrate the reactor containment atmosphere following a loss of coolant accident (LOCA) are required to be vented during leakage testing. The vented systems are required to be drained of fluid to assure exposure of the system isolation valves to containment air pressure. To meet the above requirements, the following piping penetrations will be modified and vents/drains will be added.

Penetration P-110 - "B" RCP Seal Injection

A new test/drain valve (9302) and a new block valve (9301) will be added downstream of the primary isolation valve (check valve 304B).

Penetration P-106 - "A" RCP Seal Injection

A new test/drain valve (9304) and a new block valve (9303) will be added downstream of the primary isolation valve (check valve 304A). Check valve 304A shall be replaced with a soft seat valve.

Penetration P-102 - RCS Alternate Charging

A new test/drain valve (9306) and a new block valve (9305) will be added downstream of the primary isolation valve (check valve 383B).

Penetration P-121 - Makeup to Pressurizer Relief Tank

A new block valve (9307) will be added downstream of the primary isolation valve (check valve 529). Also the tie-in of the 3/4" piping to the RCP stand pipes will be relocated from upstream of the check valve (529) inside the containment to the downstream side of the new block valve (9307).

Penetration P-100 - RCS Charging

A new test/drain valve (9308) will be provided downstream of the primary isolation valve (check valve 370B).

New check valves (9313, 9314, and 9315) will be provided upstream of existing check valves 297, 295 and 393 so that the quality group A/B boundary is relocated as close to the reactor coolant system (RCS) as possible.

New test/drain valves (9316, 9317, 9318) will be added between check valve 9313/297, 9314/295, and 9315/393, respectively.

Penetration P-207 - Pressurizer Steam Sample

A new test/drain valve (9310) and a new block valve (9309) will be added inside the containment near the penetration.

Penetration P-206 - Pressurizer Liquid Sample

A new test/drain valve (9312) and a new block valve (9311) will be added inside the containment near the penetration.

Penetration P-305 - Radiation Monitor R11, R12

A new control valve (1599) will be added outside containment near the penetration, downstream of valve 1598, as shown on P&ID 10904-270. Existing check valve (1599) inside of containment will be removed because of continued maintenance problems with check valve 1599. Replacement of the check valve with an air-operated valve will improve the reliability of penetration 305 isolation valves.

As shown on P&ID 21489-306, new block valves will be installed, where necessary, to facilitate testing of the primary containment isolation valves.

New seismic anchors will be installed where required.

For this modification, three events have been analyzed for effects on safe plant operation. The first event considered is "Chemical and Volume Control System Malfunction". This event analyzes the consequences resulting from dilution of reactor coolant by the addition of reactor makeup water via the chemical and volume control system (CVCS). Since this modification only involves minor piping changes to four (4) charging lines of the CVCS (changes which do not affect the function of the system), neither the consequences nor the margins of safety are changed for this event.

The second event considered is "Primary System Pipe Rupture". This event analyses the consequences of a loss of coolant accident (LOCA) resulting from a rupture of the Reactor Coolant System. This event could only be affected by modifications to the charging line associated with penetration 100.

As part of this modification, three (3) new check valves will be installed in the three branch lines to the RCS and the pressurizer. These new check valves will be installed upstream of existing check valves 295, 297, and 393 so that dual, positive closure valving is provided to satisfy RCS boundary isolation criteria.

Consequently, a significant amount of piping can be reclassified as non-RCS pressure boundary piping, and thus, reducing the possible consequences of a RCS pipe rupture.

The proposed modification neither penetrates any existing fire barriers nor does it affect any existing fire suppression systems. The modification does not increase any previously determined fire loadings.

The modification neither affects nor is affected by any flood or storm previously evaluated.

The consequences of an earthquake event are not increased by this modification, and in fact, the consequences of a seismic event may be reduced by this modification.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 2607C CONTAINMENT HYDROGEN MONITORING

The instrumentation described below will measure and record hydrogen concentration in containment continuously after a design basis event. The instrumentation shall be in compliance with USNRC NUREG 0737. The system will consist of two redundant hydrogen concentration monitoring devices located outside containment. Each monitor transmits a signal to the control room for display and recording on separate channels.

The containment isolation valves will close upon receipt of a containment isolation signal. Upon receipt of a manual start signal containment isolation valves will open, the sampling and analyzing systems will activate, and continuously monitor containment atmosphere. The monitors will draw a continuous sample of containment atmosphere, analyze it and discharge it to containment, utilizing existing penetrations.

The addition does not increase the possibility or impact of a fire.

Additional wiring and cable will be added in this addition, which could add to the fire loading of the plant. All such cable meets the IEEE 383-1974 flame test requirements. Because of this there will be no increase of fire loading caused by this addition.

The addition does not increase the impact of a seismic event. The design of the addition shall be Seismic Category I.

This addition does not increase the possibility of impact of an accident inside containment. The two redundant systems are qualified to withstand, within their pressure boundaries, the full spectrum of accidents inside of containment and still perform their designed function. The penetration used for instrument tubing is not subject to impact from pipe whip or fluid jets.

The addition does not increase the possibility or impact of radioactive release outside of containment.

Additional instrument tubing will be added in this addition extending the containment boundary. Isolation valves are installed as ASME Class 2, per ISA-S67.02 1980, to isolate the penetrations. Because of this there will be no increase in the possibility or impact of radioactive release outside of containment.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected.

EWR 3037 RADWASTE CONTROL SYSTEM

The modification described below will provide a Process Computer System for the existing Radwaste Panels. The panels effected by this modification are:

(a) Boric Acid Evaporator Panel
(b) Gas Stripper Panel
(c) Waste Disposal System Panel
(d) Waste Concentrate Evaporator Panel

The system will consist of a "state-of-the-art" Process Computer, two operating terminals, a pneumatic/electrical

interface rack, field multiplexers, and associated cabling, between the Process Computer System, and existing Radwaste Panels.

The addition of this Process Computer System will not create any new failure modes. By nature of its design, the Process Computer System will be configured so that in the event of computer failure, by either electrical or seismic events, the alarm acknowledgement feature will fail to the "OFF" condition. This condition will permit alarm acknowledgement at each individual panel.

The modification does not increase the possibility or impact of a fire. All additional wiring and cable meet the IEEE 383-1974 flame test requirements.

The modification does not increase the impact of a seismic event.

All additional rack equipment to be located in the Aux. Building will be seismically mounted. In a seismic event, the additional equipment will not interfere with other systems in the same vicinity.

This modification does not increase the possibility or impact of an accident inside containment.

The modification does not increase the possibility or impact of radioactive release outside of containment.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected.

EWR 3059 CONTROL OF HEAVY LOADS

The major addition will be the installation of a mechanism by which the pressurizer hatch blocks will be physically prohibited from potentially falling into the pressurizer cavity during removal and replacement (strongbacks on hatch cover blocks). The design will address only those hatch blocks required to be lifted during plant operation. The other work consists of reworking some existing monorail support attachments and adding new travel stops.

The events related to these modifications are "Control of Heavy Loads" Guidelines (NUREG-0612) and Seismic Events. The pressurizer hatch cover modification will structurally prohibit the dropping of a hatch cover into the pressurizer cavity.

Calculations have been done to show that the jib crane, even though it is not Seismic Class I, is capable of maintaining its load during a seismic event.

During a postulated drop of a pressurizer hatch cover the modification and support structure will retain the hatch cover from entering the pressurizer cavity.

During a seismic event when the load is at rest the structural integrity of the hatch block and cavity walls will be maintained. In the event of an earthquake occurrence while the load is being lifted, the jib will maintain the load.

The monorails involved in this evaluation have been reviewed according to the NUREG-0612 guidelines and safety concerns have been incorporated into the plant administrative procedures.

An adequate margin of safety exists during normal plant operations and transient conditions anticipated during the life of the station to assure the adequacy of structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents.

EWR 3100A, B, C MSR UPGRADE PHASE 1, 2, 3

The purpose of this modification is to improve the performance and reliability of the High Pressure (HP) Turbine Exhaust Moisture Separator Reheaters (MS/R's).

There are four MS/R units. Each unit is composed of a moisture separator, consisting of wire mesh pads, and a reheater tube bundle.

The new MS/R design shall be incorporated within the existing shells. Chevron type moisture separators shall be used. The reheater shall be of a four pass design or its equivalent. Moisture Preseparators shall be installed in the HP Turbine Exhausts.

Drains and vents shall be modified as required by the new equipment designs.

The HDT vent size was increased to four inch nominal pipe to eliminate level perturbations caused by flashing and make full use of this steam in the 4A and 4B heaters.

For effective control of flashing of incoming drains, the spray header was relocated in the steam space. Furthermore, since excessive quantities of quench water have an adverse impact on plant performance, the quench water control valve was resized.

A pneumatic system was installed to manually close MSR shellside drains from a local control station. This new system can be used for chemistry cleanup of the MSR's during startup. Isolation valves were installed on all four MSR excess steam lines. These were installed to provide isolation capability during plant operation for maintenance of the throttle valve, piping, or flow restriction devices.

The events related to this modification are:

(a) Loss of Normal Feedwater.
(b) Excessive Heat Removal Due to Feedwater Temperature Decrease.
(c) Excessive Load Increase.
(d) Rupture of a Steam Pipe.

Event a, loss of normal feedwater, is analyzed as that accident (pipe break, pump failure, valve malfunction, or loss of outside ac power) which results in a reduction in capability of the secondary system to remove heat generated in the core.

Since no proposed equipment or piping have any safety significance, this modification neither effects nor is affected by this event.

Event b, feedwater temperature decrease, is analyzed as the accidental opening of the condensate bypass valve 3959, a fail open, air operated, diaphragm actuated control valve plus a loss of heater drain pump flow; or the accidental movement of the feedwater control valves to the full open position. The effect of either event would be to deliver feedwater to the steam generators at a reduced temperature.

An unsafe condition would result due to excess heat removal from the primary system. The consequences and assumptions of this event have not been changed by this modification.

Event c, excessive load increase, is defined as a rapid increase in steam generator steam flow causing a power mismatch between the reactor core power and steam generator load demand. Excessive loading by the operator or system demand is analyzed and excessive loading from the steam line ruptures (event d) is examined.

Neither the consequences nor the margins of safety for this event have changed since this modification does not effect any safety related equipment.

Event d, rupture of a steam pipe, may be a steam path out of the piping or a valve malfunction.

The modification does not involve any changes which would increase the probability or consequences of a steam break in the Turbine Building.

This modification is non-seismic since it does not effect the safe shutdown of the reactor.

The modification does not increase the fire loading or degrade existing fire protection.

The margins of safety during normal operation and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the mitigation of the consequences of accidents have not been affected.

EWR 3116A SPENT FUEL POOL MODIFICATION

The Exxon Zr guide tube fuel assemblies (Batches starting with XN-4) incorporate a support pad in the top nozzle that raises fuel assembly inserts (flow mixers) approximately 1/4 inch. This results in an interference between the gripping fingers and vanes on the flow mixer. A chamfer to one side of the four fingers on the spent fuel handling tool will be sufficient to eliminate the interference.

This modification to the spent fuel handling tool will eliminate the interference problem while not effecting the ability of the tool to handle non Exxon fuel or Exxon stainless steel guide tube fuel.

This modification does not effect the operation of the tool; therefore, the probability of having a stuck fuel assembly should not be increased.

The spent fuel handling tool is non-seismic; however, the tool is designed to minimize the possibility of maloperation that could cause fuel damage.

It has been determined that:

(a) The margins of safety during normal operations and transient conditions anticipated during the life of the station are not reduced and

(b) the structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

EWR 3303 SUPERVISORY SYSTEM

This project involves the installation of metering equipment at Station 13 that will provide telemetering outputs to a supervisory remote terminal (RTU) which will be installed at Station 13A. The supervisory system will accept existing metered electric power generation parameters (watts, vars, amps and volts on the 115 kV breakers at 13A) as well as breaker position indication and transmit them to Power Control.

Since metered quantities will be available to Power Control, the present practice of plant operators reporting hourly substation reads to the load dispatchers will no longer be necessary.

All control cable used on this modification at Ginna have been designed to meet IEEE-383-1974 thus mitigating any potential for propagating a fire.

Anchorage of the equipment treated at the Plant is consistent with the criterion of IEEE-344-1975. The equipment maintains its structural integrity when subjected to seismic accelerations acting simultaneously in the vertical and horizontal planes. This will insure that this equipment does not become a missile during an SSE.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 3447 PARTS MONITORING SYSTEM

The design addition is for the installation of a metal impact monitor to "A" Steam Generator and "B" Steam Generator. The monitor includes accelerometers mounted on the steam generators, electronic equipment for processing and display of data, and interconnecting cable and control panel. The system is required to detect the presence of loose metallic parts or debris capable of degrading steam generator integrity.

Sensors (accelerometers) will be mounted on each steam generator at locations that are most likely to detect loose metallic objects on primary or secondary sides.

The addition does not increase the possibility or impact of a fire.

Additional wiring and cable will be added in this addition, which could add to the fire loading of the plant. Therefore, all such cable meets the IEEE 383-1974 flame test requirements. Because of this there will be no increase of fire loading caused by this addition.

None of the equipment associated with this addition is required to be functional during a seismic event and failure of this equipment during a seismic event will not degrade existing Seismic Category I structures or equipment.

This addition will not degrade the pressure boundary, therefore, will not increase the possibility of a large or small steam break.

It has, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected.

EWR 3666 SPENT FUEL POOL RACK MODIFICATION

This modification to the spent fuel storage racks will increase storage capacity from 595 to 1016 fuel assemblies. This increase in storage capability is required to accomodate projected fuel discharges with full core discharge capability through year 2000.

The modification consists of removing the lead-ins over the water boxes of the six west-most racks in the pool and installing neutron absorbing material in each cell. The racks will be reinstalled without bolting to the support bases and shall be analyzed in a free standing mode. In addition all seismic supports between the support bases and the pool shall be removed.

The spent fuel storage racks will maintain the stored fuel assemblies in a physically stable array under all postulated conditions such that there is no damage to the fuel and the array Keff is less than .95.

The following events have been reviewed with respect to the proposed modification.

Seismic Event

The racks are designed to a seismic class 1 criteria to insure that the stored fuel assemblies are maintained in a physically stable array with a Keff <.95 during and after a seismic event. This criteria is unchanged from previous analyses.

Fuel Handling Accident

The proposed modification will not change the probability of a fuel handling accident, or alter the structural characteristics of the rack such that the release of fission products would exceed those previously assumed. The consequences of this accident would be unchanged.

Tornado Missiles

The proposed modification will only affect the storage of well cooled fuel. The volatile fission products will have decayed sufficiently such that the doses at the EAB resulting from a postulated missile impact on the rack will not exceed those doses previously found to be acceptable. The probability of a torando missile impact is unchanged.

Control of Heavy Loads

The control of heavy loads conforms to existing Technical Specifications thereby preventing the transport of loads in excess of 2000 lbs over racks containing spent fuel.

Based on these evaluations a) the margin of safety during normal operations and transient conditions anticipated during the life of the station, and b) the structures, systems and components provided for the prevention and mitigation of the consequences of accidents, are adequate.

EWR 3744 CORE EXIT THERMOCOUPLE SYSTEM

The existing core exit thermocouple (CET) system at Ginna Station utilizes commercial grade connectors, a heated reference junction inside containment and a single display in the control room. None of the system components have qualification documentation and no isolation is provided between the control room display and plant computer (P250). NUREG 0737 and USNRC Reg. Guide 1.97, Rev. 3 require qualified core exit thermocouple system which meets the requirements of NUREG 0737 and USNRC Reg. Guide 1.97 Rev. 3.

New thermocouple connectors and extension wire will be installed on the CETs from the reactor head area through a new thermocouple penetration to the control room, eliminating the need for heated reference junction boxes inside containment. The 39 CET cables will be split into two trains outside of containment and run to separate digital scanning displays in the control room. The displays will provide isolated outputs to the plant computer for normal operations and safety assessment. The CET displays, cable, containment penetration and connectors will be seismically and environmentally qualified.

The CET system utilizes 36 thermocouples positioned to measure fuel assembly coolant outlet temperatures at pre-selected core locations and three thermocouples to measure temperatures in the plant computer and control room display to provide information for normal plant operation and safety assessment.

All cable meets IEEE-383-1974 flame test requirements. Because of this there will be no increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electrical cable installed as a part of this modification will not result in the disabling of vital equipment needed to safely shut down the plant during postulated fires.

New thermocouple connectors and control room displays installed under this modification were qualified per IEEE 344-1975, therefore, this modification will remain functional during and after a seismic event.

New thermocouple connectors installed under this EWR were qualified per IEEE 323-1974. New cable and splices installed as part of this modification were qualified per IEEE 383-1974 for flame and LOCA, therefore this modification shall remain functional during and after a loss of coolant accident.

A new electrical containment penetration will be installed as part of this modification. The penetration was qualified per IEEE 317-1976 and appropriate Appendix J testing, therefore this modification shall remain functional during and following a seismic event or loss of coolant accident.

Appropriate industry standards are required for design of interfaces to maintain the seismic class 1 quality group A reactor coolant pressure boundary.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 4126 MODIFICATION OF BACKUP RELAYS PROTECTION SCHEME FOR REACTOR COOLANT PUMPS 1A AND 1B

Backup relaying scheme was installed according to the EWR 2929.

After four (4) years of service it was determined that the time delay relays used in the scheme have the ability to cause the operation of the 86, bus lockout relay independent of the initiating overcurrent relays 50S.

This modification will modify the control scheme, such that the contacts of 62, time delay relay and 50S, overcurrent relay must simultaneously be closed in order to operate 86, bus lockout relay.

The function of the modification was to prevent the tripping and lockout of bus 11A and bus 11B due to a spurious actuation of the time delay relay.

The effects of a seismic event have been reviewed. This is a non-class 1E modification located in the turbine building. No adverse effects to a safety system will result from the failure of the proposed modification.

The effects of fire has been reviewed and it was determined that this modification does not increase the possibility or impact of a fire.

A loss of coolant flow accident has been reviewed. This modification will decrease the likelihood of tripping and lockout of buses 11A and 11B due to spurious actuation of 62, time delay relay. Tripping the buses 11A and 11B will also trip the reactor coolant pump breakers which will cause a loss of primary coolant flow. The proposed changes in the control wiring will insure that normal vibrations induced in the 5kV switchgear will not result in spurious tripping of the reactor coolant pump breakers.

Therefore, it has been determined that:

The margins of safety during normal operation and transient conditions anticipated during the life of the station are not reduced.

The structure, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

EWR 4312 MANIPULATOR CRANE MODIFICATION

This design will assist Ginna Station with the split pin changeout operations. It will encompass the addition of a monorail beam and hoist on the north side of the fuel manipulator bridge and also provide the hoist operator with a working platform.

The new fuel manipulator crane north monorail will be capable of lifting a live load of 2000#.

The monorail and bridge structural modifications themselves shall be designed for OBE and SSE events and, therefore, remain attached during an earthquake. The hoist mechanism with its live load will not be required to remain in place during an earthquake.

Monorail live loads will not be lifted during fuel handling operations and the additional modification weights will not significantly increase the bridge stresses, therefore not increasing the risk of a fuel handling accident.

The location and quantity of portable cable that does not comply with IEEE 383 flame test will not significantly increase the fire loading in the plant. The electrical modifications will be temporary and will be confined to the disconnect devices and cable in the vicinity of the 1-ton hoist, therefore, none of the temporarily installed cable will penetrate rated fire barriers.

The source of power utilized by the 1-ton hoist will be the same source as currently supplies the existing 1 1/2-ton hoist. The power supply requirements will be less or equal, therefore, there is no change in the consequences of a loss of A.C. power.

Live load support grillages will not exceed the live load capacity of the existing structures and, therefore, will not produce any uncalculated additional stresses on the structures. Therefore, it has been determined that: The margins of safety during normal operation and transient conditions

anticipated during the life of the station are not reduced. The structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

TASK ASSIGNMENT TEO 85-28 TURBINE STOP VALVE TESTING

This task assignment deals with performing an evaluation to determine the necessity of conducting turbine stop valve testing on a routine and periodic basis. The practice of routinely conducting this testing on a monthly basis was referenced in SEP Topic III-4.B (ref. a) dealing with turbine missiles, however, the commitments made to provide a high assurance against failure concerned performing periodic valve inspections and maintenance.

Justification for discontinuing monthly turbine valve testing is summarized as follows:

There is no indication that on-line valve testing influences valve reliability or failure rates. Except where deposits are involved, which Ginna has not experienced, valve exercise does not arrest degradation leading to a recognized valve failure mode and has little demonstrated value in detecting an incipient condition leading to failure.

The turbine trip system is a highly reliable feature and trip unavailability is extremely low, even without on-line valve testing.

Periodic valve inspection and maintenance is of primary importance to the detection and correction of valve failure precursors and, hence, to assuring low valve failure rates during plant operation.

Transients imposed on the plant due to failure to trip the turbine even under postulated accident conditions are not severe and in no case constitute a significant contribution to overall public risk. Additionally the main steam isolation valves provide a highly reliable backup to the turbine valves.

The cost associated with performing monthly valve testing has been estimated to be in excess of $50,000 per test. Thus a significant dollar savings can result if testing is discontinued.

Monthly stop valve testing requires undesired cycling of plant equipment sets up the potential for tripping the unit off-line. This condition would significantly reduce the availability of Ginna and contribute to our forced outage rate.

Periodic valve testing primarily demonstrates the ability of the valve to respond to a signal and close upon demand. Therefore, any operation of the valve which also demonstrates these abilities is a candidate for consideration as a surrogate test. The operation most similar to valve testing is that of a turbine trip. Tripping the turbine requires operation of portions of the autostop oil system, the EH fluid system and demonstrates valve closure.

In addition, normal stop valve tests that are performed whenever power reductions are required for other maintenance activities (i.e. condenser tube leaks) also quality as surrogate testing. Employing this technique will result in an average of five to six stop valve tests or surrogate tests per year (based on last six cycles historical average).

Periodic testing of the stop and governor valves during overspeed testing and during normal turbine startup will continue to be conducted at each turbine overhaul and refueling outage.

The likelihood of missile generation due to overspeed is acceptably low even considering yearly valve testing, and in the case of design overspeed, is relatively independent of valve test frequency. Thus, the probability of missile generation will not exceed an acceptable limit even if testing is performed no more frequently than yearly.

Thus, periodic valve testing does not have an impact on valve failure rate and thus generation of turbine missiles. Testing for this type of valve does not readily identify failure precursors, only failures. Therefore, increasing the periodic test interval will have no adverse impact on observed failure rates or valve lifetime. Testing that does not identify repairable defects cannot influence valve degradation and therefore valve failure rate. In conclusion, less frequent valve testing will not adversely impact turbine valve reliability or significantly decrease the probability of the generation of a turbine missile. Thus, the current practice of monthly stop valve testing has been discontinued.

It has been determined that:

(a) The margins of safety during normal operations and transient conditions anticipated during the life of the station are not reduced and

(b) the structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

Reference: (a) Letter from D.M. Crutchfield, NRC, to J.E. Maier, RG&E, Subject: Turbine Missiles dated Feb. 19, 1982.

EWR 2929 RELAY MODIFICATION ON ELECTRICAL PENETRATIONS

The purpose of this engineering effort is to evaluate and modify existing relay and fuse protective systems associated with the electrical penetrations to provide full coordination during fault conditions. The need for this electrical system assessment originates with the NRC's Technical Evaluation on SEP Topic VIII-4, Electrical Penetrations of Reactor Containment.

This design activity involved 1) reviewing the electrical circuits associated with the electrical penetrations, 2) preparing primary and backup protection device (fuse or relay) characteristic overlays, 3) determining if adequate backup protection exists, 4) modify existing setpoints or install additional devices to provide low level fault protection.

The backup protective system must respond to low magnitude faults so that no penetration seal damage occurs before the fault is cleared.

Loss of all a.c. is the first event evaluated by this analysis. All relay or fuse modifications have been designed such that no spurious tripping results during motor starting transients. However the backup relay zones of protection has been expanded to include low magnitude faults. This affords improved single failure protection on all circuits protecting the electrical penetrations.

Fire and earthquake events are reviewed as follows:

All control cable used on this modification will be designed to meet IEEE-383-1974 thus mitigating any potential for propagating a fire.

All relays will be qualified to IEEE-344-1975 and/or IEEE-501-1978 thus insuring operability during an SSE.

This modification meets IEEE-384-1974 to the extent practical given the existing plant configuration. Proper separation of the d.c. systems has been maintained.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 3260 SOLENOID VALVE REPLACEMENT

The NRC has issued orders requiring the review of all safety-related, air-operated, process valves in the plant which utilize non-environmentally qualified solenoid valves in their actuator design. The necessity of this review is based on the potential of non-qualified solenoid valve failure due to a seismic event or an adverse environment. The failure of the solenoid valve due to these postulated events could inhibit the in-line valve from assuming its "fail-safe" position or prevent post-accident operation. As a result of this review, fifty-three (53) solenoid valves associated with twenty-five (25) process valves shall be replaced or upgraded to seismically and environmentally qualified valves. In addition, the solenoid valves for post-accident sump sampling 10023 and 10024, will have conduit entrance seals installed.

The following control and butterfly valves shall have their respective solenoid valves upgraded.

Main steam line isolation valves 3516 and 3517, solenoid valves A, B, C and D. These are the main steam isolation valves for steam generators "B" and "A" respectively.

Feedwater line control valves and bypass valves 4269, 4270, 4271, and 4272, solenoid valves S1, S2, and S3. Control valves 4269 and 4270 are for steam generators "A" and "B". Valves 4271 and 4272 are the bypass valves for 4269 and 4270.

Containment penetration (P-300) purge exhaust butterfly valves 5878 and 5879, solenoid valves A and B. These are containment isolation valves for purge system exhaust air ductwork (5878, inside containment, removed and replaced with blind flange under EWR 2504).

Containment penetration (P-204) purge supply butterfly valves 5869 and 5870, solenoid valves A and B. These are containment isolation valves for supply air ductwork (5870, inside containment, removed and replaced with blind flange under EWR 2504).

Containment penetration (P-132) depressurization to Auxiliary Building charcoal filters, butterfly valves 7970 and 7971, solenoid valves A and B.

Containment recirculation fan 1A line butterfly valves 5871, 5872, and 5873, solenoid valves A and B.

Containment recirculation fan 1B line butterfly valve 5880, solenoid valves A and B.

Containment recirculation fan 1C line butterfly valves 5874, 5875 and 5876, solenoid valves A and B.

Containment recirculation fan 1D line butterfly valve 5877, solenoid valves A and B.

Reactor Coolant System sample line from Loop B Hot Leg to Sample System line control valve 955.

Included in the design shall be new Seismic Category I supports for RCS sample valve 955 so that the seismic support of the new solenoid valve for 955 is compatible with the seismic support design of valve 955.

Pressurizer sample valve 953 shall be resupported.

Valves X-1, 2, 3 and 4 shall be tied into the air supply lines to the pneumatic operators for each of the 2 main steam isolation valves. Two manual valves normally closed, locked closed shall be placed in series to a vent on each air supply line down stream of the tie ins for solenoid valves C & D. In the event a fire disables the solenoid valves normally used to vent the air to the MSIV's this modification will allow local, manual control of the MSIV's.

Reactor vessel head vent valves 590, 591, 592, and 593.

Also, the solenoid valves for post-accident sump sampling 10023 and 10024, will have qualified conduit entrance seals installed.

The function of all solenoid valves, other than the reactor head vent valves, and the post accident sump sampling valves is to control the supply of instrument air to the actuators of their associated butterfly and control valves.

New Seismic Category I supports will be installed to support the new, qualified solenoid valves and associated controls during and after a seismic event, where required.

New Seismic Category I supports shall be designed and installed for sample valves 953 and 955 to ensure structural integrity of the valves and attached piping/tubing during and after a seismic event.

Manual valves X-1, 2, 3, and 4 shall allow local, manual venting of the air supply to the pneumatically operated main steam isolation valves thereby closing the MSIV's.

All solenoid valves are designed Seismic Category I. In the event of an earthquake, the solenoid valve and sample valve (953 and 955) restraint designs will assure that the solenoid valves and sample valves (953 and 955) are not accelerated or stressed beyond their design values so that the solenoid valves' associated process valves are able to assume their design fail-safe position or operate post-accident, as required by the design criteria.

The new solenoid valves shall be designed to operate without hindrance from the postulated adverse environment. The upgraded valves shall ensure the operability of their associated process valves when exposed to an accident environment.

The new solenoid valves associated with the main steam valves 3516 and 3517 shall improve the existing systems' response to the fire event with the installation of independent cable routings. All other solenoid valve installations, will not degrade the existing systems' response to the fire event. Valves X-1, 2, 3 and 4 shall improve the existing systems' response for the fire event by providing manual, local closure capability for the Main Steam Isolation valves should the remote system be rendered inoperable by fire.

Environmentally qualified conduit seals to improve the post-accident operability of post-accident sump sampling valves 10023 and 10024, will prevent moisture intrusion into the SOV's.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences have not been affected.

EWR 3398 TSC BATT - VITAL BATT INTERTIE

This modification will provide a means to transfer either redundant vital DC load group ("A" or "B" train) to the Technical Support Center (TSC) battery. The system will consist of one manual, double throw, transfer switch, and cable to connect the vital 125V DC batteries to the 125V DC TSC battery. The transfer switch shall be provided with a key lock for the open position.

When a vital battery is unavailable either due to test, maintenance or failure, the load shall be manually transferred by means of a manual transfer switch to the TSC battery, and the vital battery isolated from the system.

The addition does not increase the possiblity or impact of a fire.

The transfer system has been designed to prevent a single fire from degrading both vital DC load power supplies or degrade the TSC battery when either vital DC power supply is isolated.

Additional wiring and cable has been added in this addition, which could add to the fire loading of the plant. Therefore, all such cable meets the IEEE 383-1974 flame test requirements. Because of this there will be no increase of fire loading caused by this addition.

The addition does not increase the impact of a seismic event.,

All ties to the vital systems up to and including the fused disconnect switch shall be Seismic Category I.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected.

EWR 3560 GENERATOR STEP-UP TRANSFORMER TEMPERATURE MONITOR

The importance of the Generator Step-up Transformer, the confined space in which it is located, and its reliance of fan coolers to keep it within proper temperature limits, demands that the factors relating to its thermal environment should be constantly monitored.

This modification will provide pertinent operational data on the GSU to the plant computer to establish a data base available to the Ginna Access programs for trending study and storage.

The parameters that are to be collected are as follows:

(a) Ambient Temperature
(b) Transformer top oil temperature
(c) Transformer winding temperature
(d) Status of transfer pumps and fans stage 1
(e) Status of transfer pumps and fans stage 2
(f) Status of Air Induction System
(g) Status of Combustible Gas Monitor
(h) Watts; from 13A side
(i) Vars; from 13A side
(j) Amps; from 13A side
(k) Volts; from generator side

New wiring and cable which may be required for this modification could add to the fire loading of the plant. Therefore, all such cable meets provisions, IEEE 383-1974 flame test requirements, and fire stop. Because of this, there will be no significant increase in the fire loading caused by this modification.

This modification is not required for the safe shutdown of the reactor, therefore it is non-seismic. Where applicable the modification has been mounted seismically to prevent damage to safety related equipment. The modification has been designed not to degrade seismic structures with attachments or penetrations.

This modification has been designed not to cause a loss of load transient.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3700 GINNA STATION AUXILIARY BUILDING HELB - ELECTRICAL BREAKER PROCUREMENT

This modification establishes the requirements for procuring two air circuit breakers for use at Ginna Station. These breakers will be used in the Auxiliary Building in the event that the existing breakers fail during a postulated high energy pipe break. A review of SEP Topic III-5.B, Pipe Break Outside Containment, determined that the postulated rupture of a heating or process steam line in the Auxiliary Building could cause unacceptable environmental effects on systems required to attain safe shutdown. The affected equipment required for safe shutdown include the DB-75 and DB-50 breaker associated with the charging pump 1B on bus 16 and the power cable between the bus and the motor.

The function of the two air circuit breakers is to provide 480 volt Class 1E power to one of the two charging pumps on bus 16 in the event the existing breakers are rendered inoperable due to a steam line break.

The first event evaluated is the loss of ac power to bus 16 and charging pump 1B due to the use of the new DB breakers. Specifically the proposed DB breakers, once installed to insure the operability of the 1B charging pump after a HELB, must be shown to carry the expected load without spurious trips.

The proposed breakers have been calibrated so that the new over current devices exhibit similar characteristic to the existing equipment. In addition the temporary cabling is sized so as to carry the expected full load charging pump motor current. Therefore, a loss of ac due to the use of these breakers is not anticipated.

Natural events were reviewed and found not to apply since the spare breakers and cable are designated as temporary modifications, and need not be operable during or after such events.

Therefore, it has been determined that:

(a) the margins of safety during normal operations and transient conditions anticipated during the life of the station are not reduced and

(b) the structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

EWR 3729 RELAY ROOM HALON SYSTEM

Numerous penetrations have been made in the wall that divides the relay room from the turbine building. The super wall was installed in the same time period. The USNRC Fire Protection Safety Evalaution Report dated February 14, 1979, requires an operative Halon 1301 system in the Relay Room. A concentration test was run subsequent to these modifications to determine if the Halon 1301 fire protection system was operable.

An operable halon system is one that will maintain a minimum concentration of 5% halon for 5 minutes.

The modification consisted of installing a new halon tank, discharge piping, ceiling discharge nozzles and an associated nitrogen control line to provide an extended discharge of halon 1301 at the ceiling of the relay room. The extended discharge will be at a slower rate. This extended discharge will maintain the concentration level at or above 5% for 5 minutes so that the system may be deemed operable.

The new halon tank contains additional halon gas until the existing fire detectors actuate the existing halon actuator control releasing the existing halon gas as well as the halon from the new tank.

The new discharge piping carries the new halon to the appropriate points in the Relay Room.

The new discharge nozzles have been sized to control the flow of halon into the room. The flow rate restricts rapid discharge and provides for an extended discharge of halon gas for up to five minutes.

The effects of a major fire(s) on the margins of safety are addressed in the USNRC Fire Protection Safety Evaluation Report, dated February 14, 1979. This modification will not degrade any existing fire barriers nor will it degrade any existing fire protection systems or components.

This modification will not affect any previous analyses concerning floods or storms.

The halon system is classified as a non-nuclear safety class but the piping installed in the Relay Room is supported by hangers designed as Seismic Category I. The installation of this modification does not degrade existing seismic systems or structures.

This modification neither increases the consequences, nor does it reduce the margins of safety for "Internal and External Events".

EWR 3734 CONTAINMENT RECIRCULATION FAN MOTOR MAINTENANCE

The containment air circulation cooling and filtration system enclosures do not allow removal of the fan motor for maintenance.

To allow motor removal, a modification consisting of cutting a 5'0 x 5'0 access opening in the sidewall and replacing it with a removable cover plate has been made.

This modification is not designed to perform any active safety function but is designed to remain in place following design basis events. Therefore, safety during the normal operation and transient conditions anticipated during the life of the plant will not be affected.

The structural integrity of the enclosure will not be affected by this modification during a seismic event.

EWR 3776 ADMINISTRATIVE COMPUTER FACILITY

The installation of the TMI required Safety Assessment System computer (SAS) and the replacement Plant Process Computer (PPCS) in the computer room of the Technical Support Center (TSC) display area necessitates the relocation of the Data General administrative computer now located in that area. A facility must be provided to house the Data General and support personnel.

The requirements were satisified by upgrading the auxiliary operator's office area in the TSC. The upgraded area houses the Data General equipment, terminals, additional HVAC equipment, and furnishings.

The administrative computer facility does not have to remain functional or be habitable under accident conditions.

HVAC equipment shown will provide required year round temperature control and redundancy. No charcoal filtering is required. The facility will make use of the existing non-shielded structural reinforced concrete floor and roof, masonry walls and suspended acoustical ceiling.

The computer facility will make use of an existing room of the Technical Support Center, a non-Seismic Category I structure. Since the administrative computer is not required for safe shutdown and the TSC is non-seismic, this modification is non-seismic.

Existing TSC barrier ratings will not be reduced due to this installation, in particular the three hour barrier at the Turbine Building wall.

The auxiliary operator's office area is presently a non-shielded area with no charcoal filtration provided.

This is acceptable because the administrative computer is not required for safe shutdown of the plant.

The equipment installed does not require a safety grade and/or uninterruptible back-up power source in the event of loss of offsite power. It will, however, be protected with back-up power from the diesel generator in the TSC.

The margins of safety during normal operations and transient conditions anticipated during the life of the station are not affected.

The adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents will not change.

EWR 3901 HI RANGE EFFLUENT MONITOR SYSTEM

The purpose of this modification is to shift the power source for the High Range Effluent Monitoring System from 1B Instrument Bus to a motor control center. Presently, starting one Sping effluent monitor causes a dip in 1B Bus voltage and subsequent annunciator alarm. Starting of all three monitors simultaneously results in a significant bus under-voltage condition which can cause a momentary loss of one reactor protection channel.

The function of this modification is to supply 120VAC power to the High Range Effluent Monitoring System from MCC-1D. A transformer has been installed to step down the voltage from 480 to 120 volts.

New wiring and cable will be required for this modification, which could add to the fire loading of the plant. Therefore, all such cable must meet the IEEE-383-1974 flame test requirements. Because of this there will be no significant increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electrical cable installed as a part of this modification will not result in the disabling of vital equipment needed to safely shut down the plant during postulated fires.

The modification requires that the new transformer and any new conduit be seismically supported. Therefore this modification will not degrade any safety related equipment in the event of a safe shutdown earthquake.

After a loss of offsite power, MCC-1D is fed by 1B Emergency Diesel.

An analysis has been performed to show that the 1B Emergency Diesel can safely sustain this additional load.

It has been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3983 INSTRUMENTATION REROUTE FOR TORNADOES AND HELB

In the NRC's review of pipe breaks inside containment, it was noted that safety related instrumentation cable trays and conduit passed within the zone of influence of breaks on the CVCS charging and letdown lines and accumulator "A" level tap. In the event of a postulated failure of these lines, hot or cold safe shutdown and appropriate accident mitigation instrumentation should remain available.

In addition to high energy line breaks, instrumentation routing is affected by two other postulated events: tornadoes and fires.

This modification requires the rerouting of affected instrumentation cable to ensure that required instrumentation will remain available.

The required instrumentation is pressurizer level, pressurizer pressure, RC wide range pressure, RC temperature, and steam generator level. The general philosophy to be used to evaluate the rerouting is that, for any one high energy line break, at least two channels of instrumentation for each parameter should remain available. Similarly, the protection criteria used to evaluate a tornado is to ensure that at least one channel of the above noted instrumentation remains available.

New wiring and cable is required for this modification, which could add to the fire loading of the plant. Therefore, all such cable meets the IEEE-383-1974 flame test requirements. Because of this there will be no significant increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electric cable installed as a part of this modification will not result in the disabling of vital equipment needed

to safely shutdown the plant during postulated fires. Cables for this modification are installed per IEEE-384-1977 and isolated at the power source with appropriate isolation devices.

This modification requires that all new conduit installed be seismically supported, therefore this modification will not be affected by a seismic event.

This modification does not increase the possibility of impact of an accident inside containment. The two redundant systems are qualified to withstand the full spectrum of accidents inside of containment and still perform their designed function.

This modification requires that signal cables installed be located away from areas subject to HELB, therefore this modification will not be affected by a HELB.

This modification requires that signal cables installed inside containment be qualified per IEEE 383-1974 flame and LOCA requirements, therefore this modification will not be affected by a loss of coolant accident.

It has, therefore, been determined that the margins of safety during normal operations and transients conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 4092 INSTALL HVAC POWER SUPPLY PANELS

The purpose of this modification is to establish the requirements for increasing the auxiliary power capabilities in the turbine building. Specifically, the existing 208 volts 3 Ø lighting system in the turbine building has recently been upgraded. This system has sufficient reserve capacity so that it can be used to provide both single and three phase auxiliary power throughout the turbine building. Eighteen locations have been selected to have a permanent satellite duplex power panel mounted. All the panel assemblies will be powered from the turbine building 208 volt lighting system. The auxiliary power outlets will be used primarily during plant refueling outages.

This modification would run all permanent 480 volts power circuits in conduits and trays affording mechanical protection.

This modification reduces the need for the temporary power panels during the outage as well as reduces the potential for injury due to electrical shock.

The first event that has been analyzed for this modification are the consequences of a complete loss of all AC power. Since the duplex satellite panels are all fed from a non-Class 1E lighting source, no adverse effects to class 1E 480 volts system are anticipated.

The effects of a seismic event has been reviewed and it was determined that since this non-Class 1E modification is in the Turbine Building, no adverse effects to a safety system need be considered.

The effects of fire have been reviewed and it was determined that this modification does not increase the possibility or impact of a fire. This conclusion is based on requiring that all field cables pass the IEEE-383, 1984 flame tests.

Therefore, it has been determined that:

The margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. The adequacy of structures, systems, and components provided for the prevention of accidents have not been affected.

EWR 4115 MAIN FEEDWATER PUMP NET POSITIVE SUCTION HEAD INSTRUMENTATION

Net positive suction head (NPSH) is the head available at the entrance of a pump impeller to move and accelerate the water entering. Cavitation and vibration result from pump operation at a NPSH at less than the required minimum. The existing main feedwater pump (MFWP) NPSH instrumentation at Ginna Station is an analog computer and control system which calculates the difference between available and required NPSH for the MFWPs and actuates a bypass valve and an annunciator when NPSH is insufficient. This instrumentation has become outdated and difficult to maintain due to lack of spare parts. Replacement of the existing instrumentation with Foxboro Spec 200 signal processing has been performed.

The function of the MFWP NPSH system is to compute the difference between available and required NPSH and actuate bistable devices when NPSH is less than the required minimum.

Any new field wiring and cable required for this modification could add to the fire loading of the plant. Therefore, all such cable meets the IEEE-383-1974 flame test requirements. Because of this there will be no increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electrical cable installed as a part of this modification will not result in the disabling of vital equipment needed to safely shut down the plant during postulated fires.

Reviews and/or analyses to assure continued compliance with Appendix R have been required. Safe shutdown capability following all postulated fires, therefore, will not be jeopardized as a result of this modification.

The NPSH instrumentation is not a Class IE system and is not required to function during or following an earthquake, therefore, the consequences of a seismic event will not be affected by this modification.

The hydraulic requirements placed on the system design insure that this modification is compatible with the existing plant configuration prior to being placed in service, therefore, the probability, frequency and consequences of a feedwater temperature transient are not increased.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 4123 RCP #1 SEAL D/P TRANSMITTER REPLACEMENT

The existing "Barton" D/P transmitters used to sense the differential pressure across #1 RCP seal have become outdated and difficult to maintain due to lack of spare parts. The purpose of this modification is for the direct replacement

of the existing installed transmitters with new functionally identical Foxboro D/P transmitters downstream of the instrument manifold.

The function of D/P transmitters PT 173 and PT 174 for RCP 1A and 1B seals repsectively, is to monitor differential pressure across #1 seal and provide indication in the MCB and alarm if the differential pressure drops below 200 psig.

Since only existing field wiring is being utilized, this modification does not add to the fire loading of the plant.

Reviews and/or analyses to assure continued compliance with Appendix R have been required. Safe shutdown capability following all postulated fires, therefore, will not be jeopardized as a result of this modification.

The transmitters are not required to remain functional during or after a seismic event. However, the integrity of the pressure boundary will not be degraded by an SSE. Therefore, the seismic event will not cause a LOCA.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 1606 MAIN TRANSFORMER VENTILATION

During the peak summer months, the main transformer at Ginna Station runs hot due to the insufficient ventilation. Modifications have been made to keep the transformer operating within normal internal temperatures.

The modifications consisted of:

(a) Installating air deflectors over the 5 turbine building exhaust fans which blow out into the transformer yard.

(b) Installing an additional oil cooler in the transformer oil coolant loop.

For this modification, two (2) events have been analyzed for effects on safe plant operation. The first event considered is "Internal and External Events such as Major and Minor Fires, Floods, Storms or Earthquakes". The consequences of any of these events will not be increased by this modification.

Fire barriers will not be penetrated for this modification. This ensures fire barrier integrity. Furthermore, the chance of internal fires will not be increased because all additional combustables will be located in the transformer yard external to the plant.

This modification will not affect any previous analyses concerning floods or storms.

The main transformer is not a Seismic Category I piece of equipment, nor does it contain any Seismic Category I systems or components. Furthermore, this modification is not required for safe plant shutdown which also renders it non-seismic.

The second event considered is "Loss of External Electrical Load". The addition of the oil cooler and the turbine building exhaust fan air deflectors will only aid in keeping the main transformer cool. They will not increase the probability of losing the external load on the plant generating system.

Thus, this modification neither increase the consequences, nor does it reduce the margins of safety for "Loss of External Electrical Load".

EWR 1836 PRESSURE SHIELDING STEEL DIAPHRAGM IN TURBINE BUILDING

Should there be a rupture of either a 20" diameter Feed Water Line or a 12" Main Steam Line, or a crack break in the 36" diameter Main Steam Line, there would be a resultant temperature and pressure build up inside the Turbine room which would make the Control room uninhabitable. This pressurization in the Turbine room will damage the existing structures between the Turbine room and the Control room, the Relay room, the Battery rooms, the Diesel Generator rooms and the Air Handling room. To prevent damage to these existing structures and to enable a safe and orderly shut down of the plant, the following structures have been installed:

A steel diaphragm has been erected at the south side of the Turbine Building adjacent to the Control Building from elevation 253'-6" to 308'-8". The diaphragm consists of horizontal steel beams spanning between the existing columns to provide support for vertical corrugated steel panels. The diaphragm protects the controls, Control room staff, Relay room, Battery rooms and Air Handling room from the collapse of the existing wall due to pressure resulting from the rupture of either the 20" Feed Water Line (below the operating floor) or a 12" Main Steam Line or a crack break in the 36" diameter Main Steam Line. A similar diaphragm has been erected on the north side of the Turbing Building adjacent to the Diesel Generator rooms from elevation 253'-6" to 280'-0" to protect the Emergency Diesel Generators and their controls from the collapse of the existing wall due to the same pipe breaks.

The diaphragms protect the existing wall between the Turbine room and Control room, Relay room, Battery rooms, Air Handling room and Diesel Generator rooms from collapse and will also prevent any adverse effects of heat and humidity in these enclosures. Existing doorways will be protected by blast and pressure resistant doors.

All existing penetrations through the existing walls are sealed against pressurized steam leakage.

The steel diaphragms shall be designed to sustain the design basis accidents (i.e. either a rupture of the 20" diameter Feed Water Line or a 12" Main Steam Line, or a crack break in the 36" diameter Main Steam Line) which develop pressure

and temperature resulting from these pipe breaks. This modification shall also meet structural requirements of 10 CFR Part 73 Section 73.55, and the fire protection requirements of GAI Report No. 1936 or Appendix A to the Branch Technical Position APCSB 9.5-1.

Full diameter breaks of the 36" main steam line are not postulated because the probability of such breaks is reduced to acceptably low values by the Inservice Inspection Program for High Energy Lines. The design basis is a crack break in the 36" main steam line, a full diameter break in a 20" feedwater line or a full diameter break in a 12" main steam line.

The diaphragm design is adequate for all design basis loads and events. The plant safety margins are in no way diminished by the diaphragms. Plant safety is improved by the additional protection offered by the diaphragms.

The modification will comply with the fire protection requirements as established.

The pressure shielding steel diaphragm is designed as Seismic Category I and the seismic capability of the Control building and the Diesel Generator rooms has been maintained.

The margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been degraded.

EWR 1838, 1844, 1875, and 1879 JIB CRANES, GANTRY CRANE, MONORAIL AND HOISTS

Jib cranes, gantry crane, monorail and hoists will be used only after the plant is in cold or refueling shut down to facilitate material, equipment and component handling. During normal plant operation, these will be restrained and shall not be used.

The wall mounted jib crane has a hoist capacity of one (1) ton with an effective radius of 20 feet. This crane will be located above the operating floor level of the containment building and is to be utilized in the transfer of small pieces of equipment and tools. (EWR 1838)

The floor mounted jib crane has a hoist capacity of one (1) ton with an effective radius of 16 feet. This crane will be located in the operating floor level of the containment building and is to be utilized in the refueling process to transfer plugging devices in the irradiated fuel assemblies. (EWR 1844)

The "A" frame gantry crane has a hoist capacity of (1/2) ton. This unit is to be utilized to remove the reactor vessel studs from their holders for cleaning. (EWR 1879)

The monorail and hoist shown has a capacity of two (2) tons. This monorail is located above the floor in the intermediate building for removal of the spool piece containing the venturi meter within feedwater "A". (EWR 1875)

The cranes are seismically qualified and restrained at all times except during their use; which is restricted to cold or refueling shutdown conditions. Therefore, except during periods of crane use there are no adverse consequences of a design basis seismic event.

During crane use the cranes are not seismically qualified. This is acceptable because the cranes will be in use for a relatively short period of time and the likelihood of a seismic event is small during this period of time.

In addition the use of the one (1) ton jib crane (EWR 1844) is restricted during fuel handling in the reactor cavity to handle fuel components or similar light components. Since these components are very light compared to the crane capacity, the likelihood of crane failure even during use is small in the event of an earthquake.

The wall mounted one ton crane (EWR 1838) is not used to handle or transfer components over the reactor coolant pump hatch, unless the hatch is in place. Thus the likelihood of damage to the primary system in the event of a seismic event during crane use is reduced even further.

The margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. The adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 1888 SPRAY ADDITIVE TANK PIPING

This modification to the Safety Injection System consists of adding a circulating pump and piping and adding a sodium hydroxide supply line to the tank.

The modifications are designed: (1) to provide circulation of the spray additive tank contents and (2) for the addition of small amounts of sodium hydroxide to the tank.

For this modification, two events have been analyzed for effects on safe plant operation. The first event considered is "Internal and External Events such as Major and Minor Fires, Flood, Storms, or Earthquakes". Valve V3 of this modification is within the seismic portion of the Safety Injection system and is designed as Seismic Category I while valves D1, V1, C1, V2, V4, and C2, the pump and associated piping is beyond the seismic portion of the Safety Injection system and is non-seismically designed. Valve 881-A is within the seismic portion of the system and will be normally closed. As such the requirements of NRC Regulatory Guide 1.29 are satisified and the consequences of this event are not increased; and the capability of this modification to perform its intended function is not reduced by this event.

The second event considered is "Loss of AC power to the station auxiliaries". This could only affect the circulating pump and heat tracing of the line which adds small amounts of sodium hydroxide to tank. The loss of pump power or heat tracing has no effect on the Designed Safety function of the spray additive tank.

As such, the consequences of this event are not increased; and the capability of this modification to perform its intended function is not reduced by this event.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 2148 INTERMEDIATE BUILDING, DOOR 44 MONORAILS

Monorails were installed in the intermediate building, made necessary due to the difficulties experienced in the past in removing the heavy equipments and parts manually from the intermediate floor of the intermediate building to the turbine building floor via door 44.

All structural elements and connections have been designed for 2 tons hoisting capacity. This is more than adequate for the normal intended use. All interface structures will be reviewed to assure that they can accept the added loads.

The modification, therefore, will not change the margins of safety during the normal operations and transient conditions anticipated during the life of station nor the adequacy of structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents.

EWR 2164 BLOWDOWN HEAT EXCHANGER CONDENSATE BYPASS PIPING

During power escalation and low load operation, the pressure difference across the existing line was insufficient to provide for proper condensate flow. Without enough condensate to provide cooling, blowdown capability is reduced.

The modification provides a bypass flow path for the condensate from downstream of the heat exchanger to the condenser. This bypass path furnishes the maximum pressure difference available to the condensate in the blowdown system under all operating conditions.

For this modification, five events have been analyzed for effects on safety plant operation. The first event considered is "Loss of all AC Power to the Station Auxiliaries". The effect of loss of AC power would be the subsequent loss of

instrument air which would render the steam generator blowdown system inoperable because of lack of cooling. Since steam generator blowdown has no safety significance, this modification neither effects nor is affected by this event.

The second event considered is "Steam Generator Tube Rupture". The event has been previously analyzed relative to the steam generator blowdown/condensate cooling system. The addition of a condensate bypass does not affect the conclusion of the previous analysis except that increased system reliability is being provided. As such, the consequences of this event are not increased nor are the margins of safety reduced for this event.

The third event considered is "Loss of Normal Feedwater". This event would cause the condensate pumps to trip and a resulting loss of steam generator blowdown cooling. The same conclusion is reached as that above. Thus this event is not affected by the modification.

The fourth event considered is "Loss of Condenser Vacuum". The modification is piped to an existing condenser shell piping penetration. This penetration has been increased in size from 2 1/2" to 3" nominal. The modification piping has been designed, installed, supported, and tested in accordance with ANSI B31.1. As such, this modification will not increase the probability of loss of condenser vacuum, and the modification will have no effect on this event.

The fifth event considered is "Postulated High and Moderate Energy Pipe Breaks Outside of Containment". The new blowdown condensate bypass piping is classified as high energy piping. However, this piping will have no effect on safety-related structures, systems or components because the new piping is located entirely within the Turbine Building. The new piping is separated by distance and protective barriers from safeguards systems, components and structures. Thus, neither the consequences of this event are increased, nor are the margins of safety reduced for this event.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 2359 MCB METERING TEST SWITCHES

The modification as proposed herein affects several kilowatt meters, megawatt meters, megavar meters and transducers located on the main control board. These devices must be recalibrated during each shutdown. In order to perform this calibration, permanent wiring must be removed and test leads installed. When recalibration has been completed, permanent wiring must be reinstalled. Although these wires are clearly marked, the potential exists that they may be re-installed incorrectly.

The function of the addition of metering test switches to the above devices is to assure recalibration can be performed without disconnecting wires.

The only events related to this modification are internal and external event, specifically fire and earthquake.

Fire and earthquake events have been reviewed.

All MCB wiring has been done using teflon insulated nuclear grade SIS control board wire to meet IEEE 383-1974 thus mitigating any potential for propagating a fire.

The proposed equipment shall maintain its structural integrity when subject to seismic accelerations acting simultaneously in the vertical and horizontal planes. This will assure that this equipment does not become a missile during an SSE.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant will not be reduced. The adequacy of structures, systems and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 2427 CONTROL ROOM HABITABILITY

The previous arrangement of the Control Room charcoal filter supply air ductwork causes a "short-circuiting" effect on the charcoal filter unit. This "short-circuiting" effect resulted in a decrease in the system's ability to provide effective air cleaning during an accident condition. This modification involves the relocation of the supply air duct,

for the charcoal filter, to a point just downstream of the Return Air Fan. The existing Damper #3 will be relocated, as required, to provide isolation capability from the main system return air ductwork.

The previous Control Room Charcoal Filter System was designed as non-seismic. This modification requires that ten to fifteen feet of duct be rerouted and one damper relocated, with the rest of the HVAC system remaining the same. The modification upgrades the existing system by requiring that the subject section of ductwork be seismically supported. The design of the seismic duct supports shall ensure that the duct stresses remain below yield.

In the event of a release of airborne radioactive particles the habitability of the Control Room is enhanced by providing a Control Room charcoal filter unit configuration that will perform its intended safety function.

The modified duct is an improvement to the existing systems' design. The non-seismic classification of the modified duct is justified because the existing system could not be brought into compliance with Regulatory Guide 1.29 even if the modified duct was designed seismic.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences have not been affected.

EWR 2436 INSTALLATION OF SAFETY CAGE AND BARRIER TO EXISTING LADDER "A" STEAM GENERATOR ELEVATION 295-288

This modification consists of installing prefabricated steel safety cage and barrier attachment on the existing ladder to "A" steam generator manway from level 295 to 288. This safety cage and barrier attachment prevents a person from falling over the railing of level 288 when ascending or descending the ladder.

The design has considered a secure method of installation to ensure that no significant change can occur.

The adequacy of structures has been considered. Additional vertical dead loads and seismic forces impose no unacceptable loads on existing structures.

Therefore the margins of safety during normal operations and transient conditions anticipated during the life of the plant are not decreased. The structures, systems, and components provided for the prevention of accident and the mitigation of the consequences of accidents are not adversely affected and are adequate.

EWR 2602 PRESSURIZER SAFETY AND RELIEF VALVE PIPING

Under NUREG 0737, Section II.D.1 "Performance Testing of BWR and PWR Relief and Safety Valves" the NRC requires all licensees and applicants to conduct testing to qualify the reactor coolant system relief and safety valves under expected operating conditions for design basis transients and accidents. In addition to the qualification of valves, the functionability and the structural integrity of the as-built discharge piping and supports must also be demonstrated on a plant specific basis.

In response to the valve qualification requirement, a program for the performance testing of PWR Safety and Relief Valves was formulated by EPRI. EPRI was responsible for selection of valves and fluid conditions which enveloped the program participants. Tests were conducted using these generically limiting test conditions and reports were generated summarizing the results and providing a code for computing thermal hydrodynamic loads for S&RV discharge piping under steam and water flow conditions. This modification incorporated the results of the analysis of the Ginna discharge piping reflecting the thermal hydrodynamic data from the EPRI tests.

The conditions included events resulting in valve steam discharge and an Extended High Pressure Injection Event which may result in liquid discharge. Use of the reference plant results in fluid conditions enveloping those expected for Ginna.

The only other event related to this work is a seismic event. All analyses and modifications done as part of this job will be done to criteria which will improve the piping or structures capability to withstand seismic events.

Therefore, it has been determined that:

(a) the margins of safety during normal operations and transient conditions anticipated during the life of the station are not reduced, and

(b) the structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

EWR 2828 TMI SHIELDING MODIFICATIONS

Additional shielding for personnel protection has been added to the East Wall of the Count Room in the Service Building, the area around penetration #203 in the Intermediate Building, and to the Vent Header System piping in the Auxiliary Building.

Shielding modifications are required as a result of recommendations and guidelines presented in "TME-2 Lessons Learned Task Force Status Report and Short-Term Recommendations", (NUREG-0578).

The events related to this modification are a loss of coolant accident and an earthquake.

In the event of a loss of coolant accident resulting in substantial fuel failures, personnel occupancy to permit safety related operations and operability of safety equipment must be insured. These sheilding modifications will satisfy the requirements for personnel occupancy.

The modification is being designed as Seismic Category I. Therefore, there are no adverse consequences of an earthquake.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3074 MCBF-CATWALK ABOVE NaOH TANK

The purpose of this design modification is to install a catwalk above the Spray Additive Tank in the Auxiliary Building basement. The catwalk is steel construction equal to that existing in the area, i.e. an extension of the existing platform including supports for same. This modification provides a platform for safe access to the V-209 valve, which is accessed at present by standing on nearby piping, and the spray additive tank. In order to install the catwalk, the existing platform had the new platform welded to it with concrete wall anchors supporting the opposite side.

The catwalk is required to function during and after a seismic event, specifically a Safe Shutdown Earthquake (SSE). It has been designed to withstand a SSE because its failure could affect the functioning of the Spray Additive Tank and related piping.

The margin of safety for maintenance, normal operations and transient conditions will be enhanced as a result of this modification. The adequacy of the structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents will not be affected.

EWR 3097 SERVICE BUILDING LAUNDRY ROOM HVAC

The modification is for the installation of a complete exhaust system and additional cooling for the service building laundry room. This system includes an exhaust fan with ductwork, provisions for makeup air and an Air Conditioning unit.

For this modification, three (3) events have been analyzed for effects on safe plant operation. The first event considered is "Internal and External Events such as Major and Minor Fires, Floods, Storms or Earthquakes". The consequences of any of these events will not be increased by this modification.

This modification will not degrade any existing fire barriers nor will it degrade any existing fire protection systems or components. New fire dampers were installed in the new ductwork to insure the integrity of any existing fire barriers.

The Service Building is not a Seismic Category I structure nor does it contain any Seismic Category I systems or components.

Thus, this modification neither increases the consequences, nor does it reduce the margins of safety for "Internal and External Events".

The second event considered is "Radioactive Release from a Subsystem or Component". For this modification, two occurrences shall be evaluated:

(a) Radioactive liquid waste system leak or failure.

(b) Release of radioactive airborne particulate from a ventilation system.

Since the new equipment, installed in the laundry room, contains a closed loop water system, there is little danger of radioactivity entering the water stream.

The new exhaust system for the laundry room does not exhaust air to the Service Building ventilation system. Rather, exhaust air shall be vented to the existing plant stack which has monitoring equipment installed in it.

The third event considered is a "High or Moderate Energy Pipe Break".

The new exhaust duct system has been designed to match the integrity of the Auxiliary Building ventilation system. Therefore, the consequences are not increased, nor are the margins of safety reduced should a high or moderate energy pipe break occur.

Therefore, it has been determined that:

(a) the margins of safety during normal operations and transient conditions anticipated during the life of the station are not reduced and

(b) the structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents are adequate.

EWR 3107B STEAM GENERATOR CABLE PENETRATION

The modification provides a means for routing cabling and hose into containment, during cold shutdown and/or refueling, to support steam generator maintenance, repair and/or examination activities. The modification consists of fabrication and installation of a closure device compatible with the containment equipment hatch. The closure device includes pipe sleeves capable of housing required cable and hose in an airtight configuration.

The installation of a non-seismic containment closure device will not affect the ability to provide core and spent fuel cooling during cold or refueling shutdown or the assumptions of a fuel handling accident. The proposed closure device is located remote from the reactor coolant system and components required to provide core cooling. The proposed closure device is also located remote from areas where nuclear fuel is located and handled during refueling conditions.

The consequences of a fuel handling accident inside containment are not changed by the installation of the modification. The existing fuel handling accident analyses assumes that the radioactivity associated with one fuel assembly is released to the containment at 100 hours after refueling and then directly to the atmosphere with no filtration or retention. Thus, failure of the closure device for any reason at the time of a fuel handling accident does not change the analyzed consequences at a fuel handling accident.

Assuming, that more than one fuel assembly could be damaged as a result of a seismic event during fuel handling, the radiological consequences are still acceptable. The manipulator crane is designed so that fuel will not be disengaged or damaged in an earthquake. Thus, no fuel would be damaged by a seismic event.

Therefore, the margins of safety during refueling operations of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been adversely affected.

EWR 3257 LETDOWN ISOLATION

The purpose of this modification is to provide automatic closure of LCV 427 (letdown line stop valve) and valves V200A, V200B and V202 (letdown orifice valves) upon initiation of containment isolation.

If a containment isolation signal is generated during normal letdown operations, AOV-371 is automatically closed while LCV-427 and one or more orifice valves remain open, allowing pressure to build to the relief valve setpoint. To prevent this from occurring, it is proposed that a containment isolation signal be input to LCV-427. When LCV-427 closes, the orifice valves will also close, providing redundant isolation of the letdown stream from the relief valve.

This modification required the installation of two cables running from the containment isolation relay racks in the Relay Room to the main control board.

New wiring and cable will be required for this modification, which could add to the fire loading of the plant. Therefore, such cables meet the IEEE 383-1974 flame test requirements. Because of this there will be no significant increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electrical cable installed as a part of this modification will not result in the disabling of vital equipment needed to safely shut down the plant during postulated fires. Cables for this modification were installed per IEEE 384-1981 and isolated at the power source with appropriate isolation devices. No vital equipment cables have been used in this modification which have not been reviewed under a fire protection safe shutdown analysis.

LCV-427 is located in containment inside the missile barrier and therefore subject to pipe whip from a high energy line break (HELB). Fuses will be installed in the main control board to isolate the LCV-427 air solenoid if it becomes shorted.

New cable installed for this modification has been routed in existing cable trays between the containment isolation relay racks and the main control board. Since no new conduit runs are required, installation of those cables does not increase the impact of a seismic event.

The modification is required to meet the regulatory criteria established for diverse containment isolation and containment isolation reset. The modification has been reviewed to establish that there will be no detrimental effect upon the existing containment isolation system and thus no change to analyses of events which require containment isolation.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3259 CV TRANSMITTER RELOCATION

Due to a lack of adequate environmental qualification, several safety related instrument transmitters inside containment were identified for replacement. The replacement portion of this program was implemented in which designated transmitters were replaced with Foxboro N-E10 Series transmitters qualified in accordance with IEEE 323-1971 and IEEE 344-1971.

Some of these transmitters located in the lower levels of containment may be subject to submergence in the event of a loss of coolant accident (LOCA). Since the new transmitters will not be qualified for submergence, they must be relocated at higher elevations. The minimum safe evaluation has been calculated assuming discharge of the entire RWST contents plus sodium hydroxide tank, the boric acid tanks, accumulators and RCS inventory.

The following is a brief summary of the status of transmitters in containment affected by this modification.

Steam generator wide range level transmitters LT-460 and LT-470, and SI discharge flow transmitters FT-924 and FT-925 were replaced.

Pressurizer level transmitters LT-426, 427, 428, and 433; pressurizer pressure transmitters PT-420A, 429, 430, 431, and 449; and RCS pressure transmitter PT-420.

DPT-432, the dead weight tester also existing in the Pressurizer Transmitter Cabinets, was relocated to permit the removal of the Pressurizer Transmitter Cabinets under this modification.

Main steam flow transmitters FT-464, 465, 474, and 475 required replacement only with qualified transmitters.

Outside containment, containment pressure transmitter PT-949 has been replaced.

New wiring and cable will be required for this modification, which could add to the fire loading of the plant. Therefore, all such cable meet the IEEE-383-1974 flame test requirements. Because of this there will be no significant increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electrical cable installed as a part of this modification will not result in the disabling of vital equipment needed to safely shut down the plant during postulated fires. Cables for this modification were installed per IEEE 384-1977 and isolated at the power source with appropriate isolation devices.

Instrumentation installed for this modification seismically qualified per IEEE 344-1975 to insure that the system performs its safety function following a seismic event.

The relocation of instrument transmitters associated with the pressurizer and the reactor coolant system required rerouting of the instrument sensing lines connected to the reactor coolant primary system. All new tubing and fittings installed are of the same size and grade as existing instrument lines.

The existing pressurizer sealed reference sensing lines have been abandoned in favor of an open system. This modification has been reviewed to ensure that installation of open reference legs does not create an unreviewed safety question or change the results of any previously analyzed accidents.

Electrical cable and splices installed for this modification are qualified per IEEE 383-1974 and therefore will not increase the impact of a LOCA or MSLB.

New instrument transmitters installed for this modification are qualified in accordance with IEEE 323-1974 and therefore will not increase the impact of a LOCA or MSLB.

The transmitters and all new cables and tubing are located so that high energy line breaks will not have an adverse effect upon them. Existing cable and tubing is not required to be evaluated, protected or relocated by this modification to preclude potential damage from high energy line breaks.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3261 RTD REPLACEMENT

Due to a lack of environmental qualification data, the reactor coolant system hot leg RTD's which input to the subcooling margin (Tsat) monitor were identified for replacement with qualified RTD's.

The subject single element RTD's (TE-409A and TE-410A) have been replaced with qualified dual element assemblies, each capable of providing two independent temperature outputs. One output from each assembly will continue to supply the Tsat monitor and a reactor trip interlock being installed. The other output will be brought out to a containment penetration as a spare for future use. This modification covers the proposed RTD replacement and the installation of new cable, conduit and signal processing modules.

New wiring and cable will be required for this modification, which could add to the fire loading of the plant. Therefore, all such cable meet the IEEE-383-1974 flame test requirements. Because of this there will be no increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electrical cable installed as a part of this modification will not result in the disabling of vital equipment

needed to safely shut down the plant during postulated fires. Cables for this modification have been installed per IEEE 384-1981 and isolated at the power source with appropriate isolation devices.

New RTD assemblies and signal processing modules installed for this modification are seismically qualified per IEEE 344-1975 to insure that the system will perform its safety function following a seismic event.

The probe ends of the new RTD assemblies are directly immersed in the reactor coolant system primary loop. Since the probe is constructed entirely of inorganic materials (i.e. stainless steel, platinum, MgO, ceramic), there will be no significant degradation of this modification due to irradiation during normal plant operations.

This modification will not degrade the reactor coolant pressure boundary.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 3262 SUMP B LEVEL INDICATION

Nuclear Regulatory Commission (NRC), TMI requirements and NUREG-0737 require redundant seismic and environmentally qualified containment wide range water level indication channels at Ginna Station.

The existing containment wide range (Sump B) water level indication system consists of two functionally independent channels, each with a series of five vertically stacked float switches inside containment which actuate indicator lights located on the main control board. After careful review, it has been determined that it would be difficult to document the qualification of the float switches, control cables, and indicator lights, and therefore they should be replaced with components whose qualification can be documented. In addition, the two channels are physically separated, seismically supported, and fed from separate Class IE power supplies as required by NUREG-0737.

This modification has been designed to provide indication at the following actuation levels:

- Sump B bottom (approx. 8")
- Sump B top
- minimum recirc. switchover level
- minimum safety related electrical equipment level
- 500,000 gallon mark (approx.)

New wiring and cable will be requried for this modification, which could add to the fire loading of the plant. Therefore, the Design Criteria requires that all such cable meet the IEEE 383-1974 flame test requirements. Because of this there will be no significant increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electrical cable installed as a part of this modification will not result in the disabling of vital equipment needed to safely shut down the plant during postulated fires. Cables for this modification will be installed per IEEE 384-1977 and isolated at the power source with appropriate isolation devices. No vital equipment cables will be used in this modification which have not been reviewed under a fire protection safe shutdown analysis.

Instrumentation installed for this modification seismically qualified per IEEE 344-1975 to insure that the system will perform its safety function following a seismic event. Instrumentation and conduit supports are conservatively designed to withstand the effects of the Safe Shutdown Earthquake.

Float switches, control cables, and containment penetration splices are qualified per IEEE 323-1974 and IEEE 383-1974, therefore, the Sump B Level Indication system will remain functional during and after a loss of coolant accident.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3315 THE COMPONENT COOLING WATER SURGE TANK SUPPORT MODIFICATIONS

The Component Cooling Water Surge Tank (CCWST) is a horizontally mounted tank located in the Auxiliary Building and supported by two saddles at Elevation 284'-3".

As a result an evaluation two components of the tank supports were identified as having stresses in excess of the allowables.

The objective of this effort is to design the necessary modifications that would correct the overstressed condition.

The function of the CCWST supports is to support the CCWST under all loading conditions specified.

In the event of an occurrence of a Safe Shutdown Earthquake, the Component Cooling Water Surge Tank Supports must maintain their structural integrity. The modifications made to the tank supports have been designed as Seismic Category I, which ensures that the tank is positively secured to the structure. Therefore, the ability of the tank supports to perform their safety related function during an earthquake will be assured.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been reduced. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been reduced.

EWR 3324 HYDROGEN SEAL OIL UNIT FIRE PROTECTION (ENCLOSURE)

The Hydrogen Seal Oil Unit has been enclosed with a permanent one hour rated enclosure (four walls and a ceiling). The Unit has been protected by a newly automated relocated and/or modified water spray system. In the east and west walls, roughly 7' wide x 7' high openings for ventilation and maintenance access was made. The large openings are protected by "B" label rolling overhead doors-normally open, set to close when a fusible link melts. In the south wall there is a "B" label pass door. The base of the enclosure is a continuous curb to contain any oil spills. The existing drain lines embedded in the concrete floor were plugged.

The floor inside the new walls is sloped to the existing grated trough. A pump was set in the grated trough and piped to discharge into the existing moat under the 14,000 gallon Turbine Oil Reservoir. Lifting lugs were provided in the roof structure where required for repair and maintenance of heavy items.

This modification is required to protect the structural steel in the vicinity of the hydrogen seal oil unit and preclude structural failure in the event of a fire in or around the seal oil unit.

The Nuclear Regulatory Commission requires protection of the structural steel in this area, due to the hazard of a fire in or around the Hydrogen Seal Oil Unit. However, by confining the hazardous equipment within one-hour rated enclosure with an automatic fire suppression system, and hose reels utilized by a well trained fire brigade, the threat of failure to the safe shutdown capability of the plant due to such structural failure is eliminated.

This modification is not designed to perform any nuclear safety function; therefore, such safety during normal operations and transient conditions anticipated during the life of the plant will not be affected. Thus the adequacy of structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents will not be reduced.

EWR 3435 CONTROL SCHEME MODIFICATION 1C SAFETY INJECTION PUMP

The modification affects the Emergency Safety Features Actuation System (ESFAS). Specifically, the 1C Safety Injection pump control scheme is to be modified so as to a) insure predictable loading of the 1C pump, b) improve availability of the 1C pump in the event of a breaker failure, c) prevent the transfer of a faulted 1C pump motor from its preferred to its alternate source and d) allow the 871 A & B valves to go full open upon the loss of both 1A & 1B pump breakers.

An improvement in the performance of the ESFAS system can be accomplished by using "time delayed" contacts as interlocks, that is, output contacts on the time delay relays.

This modification establishes bus 14 as the preferred source for the 1C SI pump and bus 16 as the backup source, should bus 14 be out of service.

In addition to modifications to the interlocks, the control scheme for the valves associated with the 1C pump was evaluated.

In the event that either the 1A or 1B SI pump breakers fail to close after an SI singal is received, then the 871 A or B valves are automatically aligned so that the 1C pump functionally replaces the lost SI pump.

However, in the event that both the 1A and 1B SI pump breakers electrically fail to close after an SI, the 871 A & B valves will automatically go closed, isolating the 1C pump.

The modification provides valve control logic consisting of an auxiliary relay that energizes only when both the SI01A and 1B breakers fail to close. This relay will block the auto closure of both 871A and B valves. This logic is only formed during SI. The auxiliary relay, once energized, will prevent the 871 A & B valves from going closed. (Note: 871 A & B are normally "opened").

The first phase of this modification replaces the existing instantaneous interlocking contacts with time delayed contacts. This will insure predictable loading of the 1C pump motor while not degrading overall reliability. The contacts are normally closed and the failure of one or both to open will not prevent the 1C SIP motor from being made operational.

The second phase of this modification makes use of an existing time delay relay to form a control scheme that will allow the 1C SIP motor to transfer to the alternate source should the preferred souce fail for any reason other then a fault condition.

The third phase of this modification prevents the 871 A & B valves from going closed in the event that both breakers on SIP 1A and 1B fail to close. The consequences of a failure of this scheme or any component associated with this proposed scheme would be that under those conditions the 1C SIP function would be lost.

As presently configured, if both the 1A & 1B SIP breakers fail to close concurrent with an SI signal, the 1C SIP function is also lost. Therefore the modification improves the existing scheme.

A component failure in this modification will not degrade the system function from its present configuration, but would make the system equivalent to the present configuration.

Since this modification does not involve penetrating any exisiting fire barriers nor anchorage of any large assembly the existing fire and seismic conditions do not require analysis.

It has, by this analysis, been determined that the margins of safety during normal operations and transient conditions have not been affected.

EWR 3571 COMPONENT COOLING WATER SURGE TANK LEVEL INDICATION

Nuclear Regulatory Commission (NRC) SEP Topic VII-3 requirement that a second component cooling water surge tank level indication redundant to the present indication system, be provided at Ginna Station.

The existing component cooling water surge tank level indication system consists of a displacement transmitter (LIT-618) connected to two level controllers and indicators. Level indicator LE-618A provides a local read of tank level while level indicator LI-618B is located on the main control board. Level controllers LC-618A and LC-618B actuate contacts on high and low tank levels respectively which annunciate on the main control board.

The second component cooling water surge tank level indication system has been provided by installing two new float switches which are independent of the existing system. A failure of the transmitter or power supply providing control room indication will not affect the ability of the new high and low level alarms to function. This modification was designed with the same actuation levels and actuate the same two annunicator alarm windows as the existing system.

New wiring and cable will be required for this modification, which could add to the fire loading of the plant. Therefore, all such cable meet IEEE-383-1974 flame test requirements. Because of this there will be no significant increase of fire loading caused by this modification.

This modification has been reviewed to ensure that failure of any electric cable installed as a part of this modification will not result in the disabiling of vital equipment needed to safely shutdown the plant during postulated fires. Cables for this modification will be installed per IEEE-384-1977 and isolated at the power source with appropriate isolation devices.

Each of the annuniciator windows is provided with two light bulbs although each annunicator is dependent upon a single circuit for proper operation of the "horn silence", "acknowledge" and "reset" buttons. The redundant CCWST level inputs to the alarm, the redundant annunciator power supplies, and the trouble free annunciator operation over a ten year period provide reasonable assurance that the alarms will alert the operators.

Equipment for this modification is located away from areas subject to HELB, therefore this modification will not be affected by an HELB.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3572 MODIFICATION OF THE SODIUM HYDROXIDE TANK

The Sodium Hydroxide Tank (SHT) (or spray additive tank) is a horizontal cylindrical headed tank located in the Auxiliary Building and supported by two saddles at the ground floor (El. 235'-8"). The tank is 17'-6" long from head to head and 90" in diameter. The spacing between saddles is 9'-0", and each saddle is anchored into concrete by eight (8) 1" diameter bolts.

Three safety-related tanks were sampled and evaluated as part of the United States Nuclear Regulatory Commission's (USNRC) Systematic Evaluation Program (SEP). As a result of this review and subsequent analysis, it has been concluded that design modifications are required to two of the three tanks.

Since the saddles are not rigidly attached to the tank body, the overall stability of the tank was decided to be investigated first. The results show that the tank will be unstable during an SSE event. Thus, a modification of the SHT is required.

The objective of this effort is to design the modifications that would provide adequate seismic restraint for the tank, and also assure that the tank stresses are within allowables.

In the event of a LOCA, the function of the SHT is to contain enough sodium hydroxide solution which, upon mixing with the refueling water from the Refueling Water Storage Tank, the boric acid from the Boric Acid Tank, the borated water contained within the Accumulators and primary coolant, will bring the concentration of sodium hydroxide in the containment to approximately 0.6 percent by weight (to give a final pH in the range 9.0 to 9.5).

In the event of an occurrence of a Safe Shutdown Earthquake, the Sodium Hydroxide Tank must maintain its structural integrity. The modifications to the tank have been designed as Seismic Catetory I, which assures that the tank is adequately supported. The modification rigidly ties the tank body to the supports, and thus maintains consistency with the Piping Seismic Upgrade Program design considerations. No significant additional piping loads were generated as a result of this modification, therefore, the ability of the tank and attached piping to perform its safety related function during and after an earthquake will be certain.

The modification will not affect the functioning of the Sodium Hydroxide Tank, therefore, the Containment Spray System is not affected.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been reduced. The adequacy of structures, systems and components

provided for the prevention of accidents and the mitigation of the consequences of accidents are not reduced.

EWR 3575 STIFFENER MODIFICATION TO THE MAIN CONTROL BOARD

The Main Control Board at the R.E. Ginna Station has been shown to meet the acceptance criteria for the SSE postulated at the site after certain modifications are installed. The load path for the inertial forces has been evaluated and found to be adequate except as noted in six specific cases.

The following modifications were performed:

(1) Addition of a vertical stiffener to a 1-inch wide vertical plate strip in the middle of the rear right panel is required.

(2) Increasing the capacity of two vertical stiffeners on the center rear panel is required.

(3) Re-support the two recorders at the left edge of the left rear panel or stiffen a 2-3/4 inch wide vertical strip between the recorders and the distribution panel.

(4) Extend the left most stiffener of the center bench the entire width of the bench.

(5) Re-support the controllers on the left side of the center bench.

(6) Add connection plates between the adjacent sections of the MCB on the vertical panels and the roof plates at the miter junctions of the MCB.

The six modifications described above will result in assuring structural integrity of the MCB during the SSE. They are not expected to drastically change the dynamic response of the MCB panels.

Adequate precautions have been taken to ensure that the wiring inside the MCB is not subjected to direct heat or sparks due to the required welding.

The addition will increase the seismic capacity of the MCB panels.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 3580 STEAM GENERATOR FACILITIES BUILDING

In order to fully coordinate steam generator activities such as sleeving and eddy current programs a central facility is required. This modification provided for an addition to Ginna Station of a two story pre-engineered metal building. This building is required for consolidation of all S/G training, inspection, testing and other related groups and personnel. It was divided into office and shop areas with room for "Hot" tool storage.

The following items must be addressed:

(1) radiation shielding
(2) controlled releases
(3) seismic event
(4) fire

(a) Radiation intensity outside the "Hot" Tool Storage Area is limited to levels less than those requiring controlled area access levels according to Ginna Station Administrative Procedure A-1, "Radiation Control Manual".

(b) Controlled releases of contaminated materials will be monitored and be in accordance with regulatory requirements and plant procedures.

(c) During a postulated seismic event, failure of the Steam Generator Facilities Building would not release significant radioactive contamination to the environment. Failure of the Steam Generator Facilities Building will not affect any safety related structure or system.

(d) In the event of a fire, the remote location of the Steam Generator Facilities Building in relation to the main plant superstructure eliminates any adverse effects which may be caused by such an occurrence. The proposed building structure will contain an adequate fire protection system and components provided for the mitigation of fire emergencies.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3659 BORIC ACID TANK/RWST SWITCHOVER

The existing automatic switchover from the BAT to the RWST will occur only when an SI signal is present. If SI is reset and the SI pumps are not shut off, the automatic switchover will not occur unless manually initiated. If the operator forgets to do the switchover, SI pump damage could result. The purpose of this modification was to remove the SI dependency from the BAT/RWST automatic switchover logic.

New wiring and cable will be required for this modification, therefore, all such cable meet IEEE-383-1974 flame test requirements. Because of this there will be no significant increase of fire loading caused by this modification.

Failure of any electric cable installed as a part of this modification will not result in the disabling of vital equipment needed to safely shutdown the plant during postulated fires. Cables for this modification were installed per IEEE-384-1981 and isolated at the power source with appropriate isolation devices.

This modification requires internal wiring changes in the BAT/RWST valve control logic. There were no installation of components which could affect the seismic withstandability of existing equipment. Therefore this modification will not increase the impact of a seismic event.

This modification removes SI dependency from the BAT/RWST automatic transfer logic and prevents the transfer from being blocked by an SI reset. The normal safety injection sequence of first taking suction from the boric acid tanks and then automatically transferring to the RWST will be unaffected. Therefore, there will be no degradation of the ability of the safety injection to deliver borated water to the reactor during a safety injection event.

This modification will eliminate the need for an administrative procedure which requires that the automatic BAT/RWST transfer be completed before safety injection is reset. This modification will preclude blockage of the automatic BAT/RWST transfer and therefore improve the reliability of the safety injection system.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3697 HYDROGEN RECOMBINER FLOW INSTRUMENTATION

Each hydrogen recombiner in containment at Ginna Station is equipped with two flow sensing devices to detect proper combustor flow. Circuitry from either of these devices provides a permissive which is required for lighting off the combustor. These flow sensors were not qualified to current nuclear standards, therefore, they were replaced with qualified devices.

New wiring and cable required for this modification could add to the fire loading of the plant. Therefore, all such cable meet the IEEE 383-1974 flame test requirements. Because of this there will be no significant increase of fire loading caused by this modification.

New flow transmitters and d/p switches installed under this modification were seismically qualified per IEEE 344-1975. These sensors were seismically mounted to insure their ability to function following a safe shutdown earthquake.

New flow transmitters and d/p switches installed under this modification were environmentally qualified per IEEE 323-1974. Therefore, these sensors will be able to perform their function following a loss of coolant accident.

Only one of the two hydrogen recombiners is required to maintain the post LOCA hydrogen concentration in containment. Also, only one of the two flow sensors is required for the operation of one of the hydrogen recombiners. Thus, only one of the two flow sensors per recombiner is required to be installed and qualified. However, redundant qualified sensors were installed for each recombiner.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3752 HP COUNT ROOM HVAC

This design criteria covers the design input information required to install a small air handler for the service building HP count room. The new air handler is necessary because the present air conditioning system does not have the capacity to maintain the temperature in the count room.

This modification will not degrade any existing fire barriers nor will it degrade any existing fire protection systems or components.

This modification will not affect any previous analyses concerning floods or storms.

The Service Building is not a Seismic Category I structure nor does it contain any Seismic Catetory I systems or components. Furthermore, this modification is not required for plant shutdown which also renders it non seismic.

The amount of contaminated materials and samples in the count room are so small that a spill will not cause an unacceptable release. Also the modification only supplies air to the room. It does not take air and distribute it to other areas. Therefore, filters are not necessary.

As a result, this modification neither increases the consequences, nor does it reduce the margins of safety for "Internal and External Events".

EWR 3784 ANCHORAGE OF CONTROL PANEL ASSOCIATED WITH GENERATOR EXPANSION DETECTION SYSTEM

This modification involves the anchorage of a new control panel to the main control board and the installation of a Bentley Nevada shaft expansion detection system which replaces a portion of an existing system. Specifically the system monitors and alarms shaft elongation on the generator side of the main shaft. This system requires the addition of a new control panel to the main control board as well as some rewiring in the MCB.

The anchorage system associated with this panel assembly must be able to withstand the effect of a safe shutdown earthquake and not become a missile during this design bases event.

The anchorage of the panel assembly was analyzed to ensure that it was designed consistent with the criterion of IEEE 344-1975. The anchorage hardware was qualified by analysis while the load path integrity and the effects of this panel on the MCB was qualified by a low amplitude seismic test.

Therefore, the margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided for the prevention of accidents and for the mitigation of the consequences of accidents have not been affected.

EWR 3788 STEAM GENERATOR J-NOZZLE REPLACEMENT

This modification consisted of replacing the existing 2" schedule 80 carbon steel J-nozzles with J-nozzles of similar geometry but fabricated from SB-167 thermally treated inconel. The modification is required because of erosion/corrosion of the existing J-nozzles.

There are no consequences of the modifications from an earthquake since it is designed as Seismic Category I.

The modification does not change the consequences of a postulated loss of normal feedwater.

The modification does not change the consequences of postulated loss of all A.C. power to the station auxiliaries.

The modification does not change the consequences of a postulated steam generator tube rupture.

The modification does not change the consequences of a postulated steam line break.

Water hammer

The feedwater rings in pressurized water reactor steam generators can uncover and drain during abnormal operating transients such as main feedwater pump trips. To restore the water level and maintain adequate heat transfer between the secondary and primary coolant, cold auxiliary feedwater is introduced into the main feedwater piping. This water is normally pumped at a relatively low rate. Under some circumstances, this water can form a slug that blocks the pipe across section and traps a steam void upstream. If this occurs, the steam in the void condenses, the void pressure decreases to near zero, the water slug is accelerated upstream through the piping by the pressure difference acting on it, the slug impacts the first elbow or pipe bend, a pressure wave propagates through the entire piping system, and some piping, supports or components may be overstressed.

Westinghouse has identified 4 design features to be incorporated on the Model F steam generators to preclude water hammer:

(a) install J-tubes on top of feedwater ring

(b) use of a sealed thermal sleeve

(c) design top of feedwater ring level with top of feedwater pipe

(d) minimize length of horizontal feedwater piping adjacent to steam generator

At the present time Ginna has (a) minimum length of horizontal feedwater piping (b) auxiliary feedwater flow limit and (c) automatic initiation of auxiliary feedwater flow on low

steam generator level. It is not feasible to backfit the Ginna steam generators with sealed thermal sleeves and/or top level feedrings. Therefore, installation of J-tubes is the only other additional means available for further reducing the probability of occurrence of water hammer at Ginna.

Also, Westinghouse has stated that they have been unable experimentally to produce water hammer with J-tubes and a short feedwater line. The J-tubes have been successfully tested at Indian Point 2 and Trojan.

The J-tube modification has been correctly designed to minimize the probability of water hammer in the Ginna steam generators.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3794 A & B DIESEL START SWITCH ALARM

If the start switch for A or B diesel on the main control board is turned to the trip position, the redundant diesel start relays (R1 and R2) for that unit are disabled and remain in that condition until the diesel shutdown reset button is pressed. Once reset, the start relays are enabled and aligned for a diesel start signal. Failure to reset will result in a diesel inoperative condition, and is indicated by two of the four diesel status lights being dark. Since the status lights for both diesels are located on the rear of the main control board, it is possible for this condition to exist undetected. The purpose of this modification is to annunciate the requirement for diesel reset to the plant operators in the control room and in each diesel generator room. In addition, the lenses for the diesel status lights will be changed from red to blue to more readily identify them as a control permissive indication.

New internal hook up wire was required in each emergency diesel control cabinet could add to the fire loading of the plant, therefore, all new hookup wire is type NSIS or equivalent, therefore, there will be no increase of fire loading due to this modification.

All components will not degrade any existing IE system.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected.

EWR 3887 TURBINE SUPERVISORY INSTRUMENTATION

This modification involves the upgrading of the turbine supervisory instrumentation. The existing Westinghouse instrumentation was replaced with Bently Nevada pick-ups, signal conditioning equipment and analog monitors. This equipment was being replaced because it was antiquated and spare parts for this equipment are not longer available.

The turbine supervisory instrumentation systems consists of a proximity transducer system which uses non-contacting pick-ups for measuring the gaps of the following sensors: radial vibration (2 new 90° apart), key phasor reference (new once per turn reference probe proximeter), eccentricity and thrust position.

New wiring and cable will be required for this modification, which could add to the fire loading of the plant, therefore, all such cable meets the IEEE 383-1974 flame test requirements. Because of this, there will be no significant increase of fire loading caused by this modification.

This modification required the installation of new signal processing and display equipment in the main control board. A seismic event will not reduce the functioning of any safety related equipment or cause incapacitating injury to control room personnel. An analysis showed that the modification does not degrade the seismic withstandability of the main control board.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been afffected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

This modification is designated not Seismic Category I because it is not required to operate during or after a seismic event. Failure of this modification will not prevent the emergency diesels from performing their safety function. This modification will not degrade the capability of the emergency diesel control system to withstand a seismic event.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation or the consequences of accidents have not been affected.

EWR 3879 HYDROGEN MONITOR CALIBRATION

The modification described below will increase the accuracy of the Hydrogen Monitoring System by providing for "on line" calibration capability. The system consists of two hydrogen tanks located in the basement of the Turbine Building with tubing connected between them and the hydrogen monitoring cabinet located in the basement of the Intermediate Building. One tank will be connected to "A" train and one to "B" train to maintain isolation of the units.

The addition does not significantly increase the probability or impact of a fire.

System components are non-flammable with the exception of the hydrogen gas. However, nominal concentration of the gas is less than 10% with the remainder inert gas. Tank sizes are not to exceed 244 cu. ft. Hydrogen concentrations of this magnitude do not create a serious fire hazard in the area of the basement of the Intermediate Building.

The potential for detonation is low because of the 10% concentration used in the storage bottles. Good ventilation in the turbine and intermediate buildings and the closing of the tank valves after each use will further reduce the potential for detonation that might be possible if the hydrogen piping is damaged.

The addition does not increase the impact of a seismic event.

EWR 3897 CONTAINMENT SUMP A LEVEL SYSTEM

The purpose of this modification was to replace existing Sump A level transducer assemblies with new models developed by the original vendor. The existing assemblies have proven to be short lived and unreliable due to water seepage when submerged.

This modification requires the replacement of existing transducers and cable in Sump A with identical items except for the addition of a protective rubber hose surrounding the cable and attached to the transducer. The rubber hose is not considered to significantly increase the probability or consequences of a fire in Sump A.

The existing Sump A level system is qualified to 10^7 Rad TID. The new transducer assemblies installed are constructed of material with identical or superior radiation withstandability. The only new addition to this system is the protective rubber hose which serves to provide an extra watertight seal at the transducer. The A sump level monitoring system is required by NUREG-0737 to give indication of reactor coolant system leakage or other abnormal conditions. It is not required to remain operable following design basis accidents. Failure of the system will not cause a loss of coolant accident. Therefore, the probability or consequences of a LOCA are not increased by this modification.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

EWR 3912 FEEDWATER TEMPERATURE MEASUREMENT

The measurement of feedwater temperature for the calorimetric is presently performed using thermocouples downstream of H.P. Heaters 5A and 5B. The thermocouples and the location the measurement is taken force the incorporation of measurement uncertainties which are unacceptable.

The purpose of this EWR was to procure new temperature sensors with improved accuracy and install them in locations more favorable to obtaining true feedwater temperature. Existing thermowells located downstream of the feedwater flow venturies are considered acceptable locations for installing the new temperature sensors.

New instrument cable required for this modification could add to the fire loading of the plant. New instrument cable is qualified per IEEE 383-1974, therefore, there will be no increase of fire loading due to this modification.

This modification is designated not Seismic Category I because it is not required to function during or after a SSE in accordance with USNRC Reg. Guide 1.29.

Some components of this modification during a seismic event could pose a threat to nearby safety related equipment. This modification is designed to meet the requirements of USNRC Reg. Guide 1.29, Section C.2, therefore, there will be no degradation of safety systems due to a seismic event.

The thermocouple that is replaced by the RTD is checked annually to an accuracy of ±2°F. The RTD calibration schedule shall be accurate to ±.8°F, therefore, the actual measurement uncertainty will be decreased.

It has, therefore, been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents have not been affected.

SECTION B - COMPLETED STATION MODIFICATIONS (SMs)

This section contains a description of station modification procedures performed in the facility as described in the safety analysis report. Station modification procedures are written to complete a portion of an Engineering Work Request (EWR) identified by the same parent number. Station Modifications are reviewed by the Plant Operations Review Committee to ensure that no unreviewed safety questions or Technical Specification changes are involved with the procedure.

The basis for inclusion of an SM in this section is closure of the SM where portions of the parent EWR, in the form of other SMs, remain to be completed.

SM-1594B.1 POWER CABLE CONNECTION ON BUS 16 POS. 17A FOR SFP COOLING (PHASE 2) PUMP

The purpose of this procedure is to control the installation of power cables from BUS 16 breaker position 17A to tray 106.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-1596.5 ELECTRICAL TIE-IN OF TB-1 AND TB-4 TO EXISTING EQUIPMENT AND PERMANENT TIE-IN OF NEW 225 KVA TRANSFORMER TO BUS 13

The purpose of this procedure is to provide the guidance necessary to Electrically Tie-In Lighting Panels TB-1 and TB-4 to the existing system, and to permanently Tie-In the new 225KVA Transformer to Bus 13.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-1607.1 MODIFICATION TO NET MEGAWATT METER

The purpose of this procedure is to control the installation, testing and turnover of the modification to the NET megawatt meter at the MCB. This procedure will allow work to be accomplished in the Control Room and Relay Room.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-1660.2 INSTALLATION AND TEST OF NEW PRESSURE REGULATION VALVES, FILTERS AND PIPING IN RCS OVERPRESSURIZATION SYSTEM

The purpose of this procedure is to provide the guidance necessary to install and test the new pressure regulation valves, filters and piping installed in the RCS Overpressurization System. An integrated system test will also be performed. This procedure will allow work to be accomplished in Containment. The general purpose of this modification is to install new qualified pressure regulation valves, filters and piping into the existing overpressurization system. The new filters will prevent foreign matter in the piping from entering pressure regulation valves.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

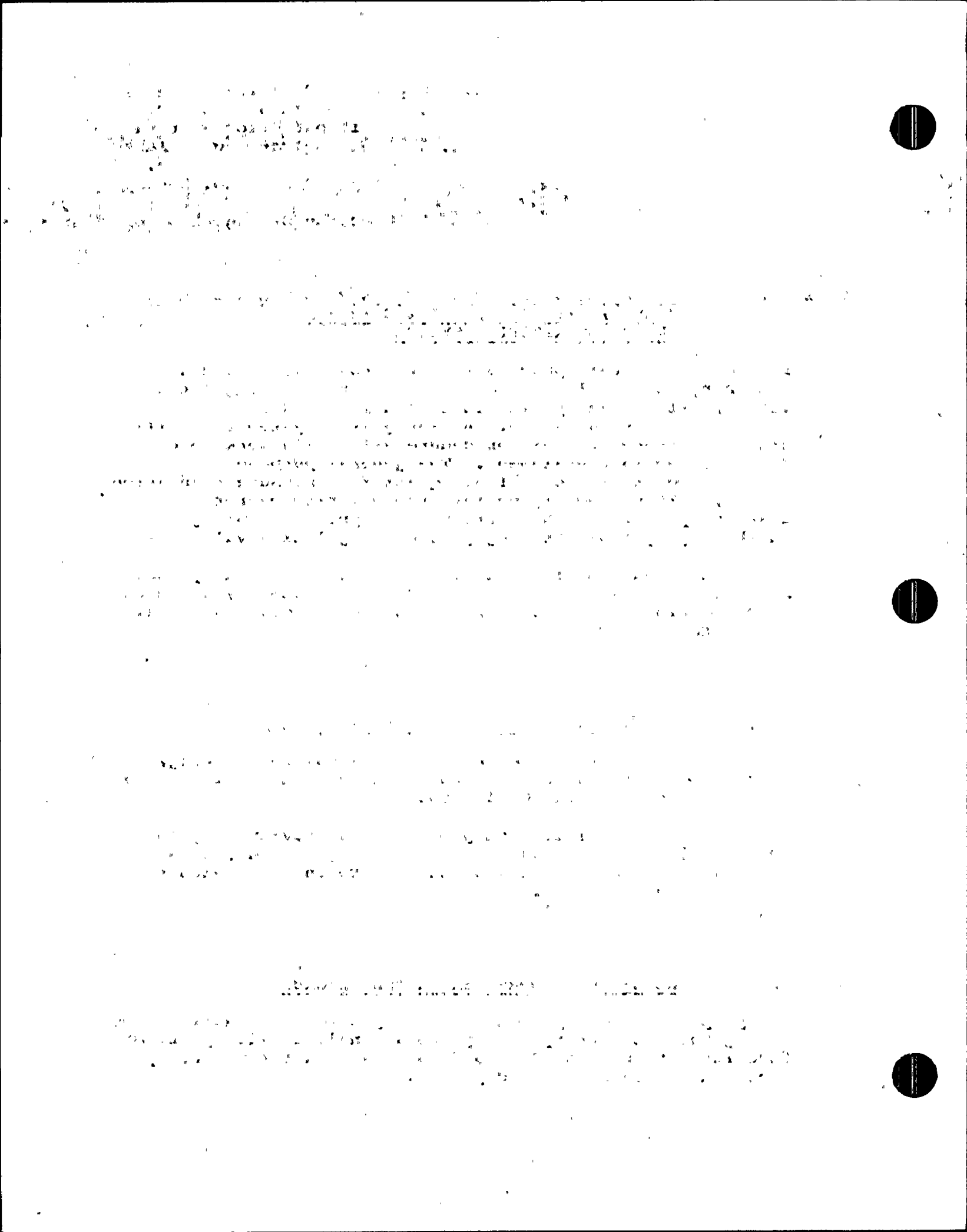
SM-1832A.11 BREAKER REPLACEMENT BUS TIE - BUS 14/16

The purpose of this procedure is to control the testing, installation and turnover of the designated qualified DB 75 Breaker to be used in BUS 14 position 19C.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-1832B.96 RETEST PROCEDURE SSA BATTERY BACKUP

The purpose of this procedure is to provide instructions for making the SSA Battery Backup operational, and for performing functional testing of SSA to demonstrate that the battery backup modification is acceptable.



SM-1832B.97 RETEST PROCEDURE SSC BATTERY BACKUP

The purpose of this procedure is to provide instructions for making the SSC Battery Backup operational, and for performing functional testing for SSC to demonstrate that the battery backup modification is acceptable. This procedure will allow work to be accomplished in the Relay Room and Control Room.

SM-1832B.98 REPLACEMENT AND TESTING OF VALVE TAMPER SWITCHES

The purpose of this procedure is to provide guidance for the replacement of the existing normally closed valve tamper switches with normally open tamper switches. This procedure will allow work to be accomplished in the Turbine Building, Relay Room and Auxiliary Building.

SM-1832B.99 TERMINATION AND TESTING OF FIRE DETECTION ZONE Z-35 (SPENT FUEL PIT AREA)

The purpose of this procedure is to provide instructions for termination and testing for Fire Detection Zone Z-35, "Spent Fuel Pit Area". This procedure will allow work to be accomplished in the Relay Room, Spent Fuel Pit and Control Room.

SM-1832B.100 ELIMINATION OF UNNECESSARY FLASHING LEDs IN SATELLITE STATIONS

The purpose of this procedure is to provide instructions to eliminate LEDs flashing in Satellite Stations A, B & C. This procedure will allow work to be accomplished in the Control Room and Relay Room.

SM-1832B.101 REPLACEMENT OF BATTERIES AND INSTALLATION OF KEYSWITCHES ON THE SSA & SSC BATTERY BACKUP SYSTEMS

The purpose of this procedure is to control the installation, testing and turnover of batteries and keyswitches for the SSA and SSC battery backup system. This procedure will allow work to be accomplished in the "B" Battery Room and Relay Room.

SM-1832B.102 INSTALLATION AND REPLACEMENT OF FIRE BELLS AND REMOVAL OF HORN DEFEAT SWITCHES

The purpose of this procedure is to control the installation testing, and turnover of fire bells in the Auxiliary Building Intermediate Floor, Cable Tunnel, and Fire Deluge Horn in Containment. Deluge horns will be tested on systems where defeat switches will be removed. This procedure will allow work to be accomplished in the Relay Room, Containment, Auxiliary Building, Intermediate Building and Cable Tunnel.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-2504.1 INSTALLATION OF JIB CRANE INSIDE CONTAINMENT TO FACILITATE REMOVAL OF PURGE EXHAUST VALVE 5878 AT PENETRATION 300

The purpose of this procedure is to control the installation and removal of a jib crane which will be used temporarily to remove Purge valve 5878 at Penetration 300. This procedure will allow work to be accomplished in the Containment Building - above the operating level, at column C102.

SM-2504.2 INSTALLATION OF MINI-PURGE SUPPLY FAN CONCRETE PAD

The purpose of this procedure is to control the installation and turnover of a concrete foundation for later installation of a mini-purge supply fan. This procedure will allow work to be accomplished in the Cold Intermediate Building elevation 298'.

SM-2504.3 REMOVAL OF 48" PURGE SYSTEM SUPPLY VALVE AND BLIND FLANGE INSTALLATION INSIDE CONTAINMENT AT PENETRATION 204

The purpose of this procedure is to control the installation, testing, and turnover of a blind flange assembly located in Containment at Penetration 204. This procedure will allow work to be accomplished in the Containment Building - intermediate elevation.

SM-2504.4 REMOVAL OF 48" PURGE SYSTEM EXHAUST VALVE AND BLIND FLANGE INSTALLATION INSIDE CONTAINMENT AT PENETRATION 300

The purpose of this procedure is to control the installation, testing, and turnover of a blind flange assembly located inside Containment at Penetration 300. This procedure will allow work to be accomplished in the Containment Building - above operating floor elevation (Mezzanine level).

SM-2504.5 REMOVAL OF CONDUIT AND CABLE OUTSIDE OF CONTAINMENT ASSOCIATED WITH PURGE SYSTEM VALVES INSIDE CONTAINMENT AT PENETRATIONS 204 AND 300

The purpose of this procedure is to control the removal of existing conduit and cable located outside of containment associated with purge system valves inside containment at penetrations 204 and 300. In addition, wiring revisions will be performed in Relay Rack RA-1 and the Intermediate Building Leak Test Panel (IBLTP) to revise purge fan starting permissive logic and remove Safeguard Initiation (SI) and Containment Isolation (CI) inputs to the removed valves. This procedure will allow work to be accomplished in the Control Room, Intermediate Building and Service Building - all elevations.

SM-2504.6 REMOVAL OF CONDUIT AND CABLE INSIDE CONTAINMENT ASSOCIATED WITH PURGE SYSTEM VALVES INSIDE CONTAINMENT AT PENETRATIONS 204 AND 300

The purpose of this procedure is to control the removal of existing conduit and cable inside containment associated with purge system valves inside containment. This procedure will allow work to be accomplished in the Containment Building - all elevations.

SM-2504.7 REPLACEMENT OF EXISTING 8" DUCT WITH 10" DUCT AND SEISMIC SUPPORTS INSTALLATION AT MINI-PURGE EXHAUST PENETRATION 132

The purpose of this procedure is to control the installation of a 10" duct and required supports routed from the outside Penetration 132 isolation valve to the Auxiliary Building air filters. This procedure will allow work to be accomplished in the Auxiliary Building - intermediate floor.

SM-2504.9 INSTALLATION OF STARTER FOR MINI-PURGE SUPPLY FAN

The purpose of this procedure is to control the installation, testing, and turnover of a motor starter for the mini-purge supply fan. This procedure will allow work to be accomplished in the Turbine Building - basement.

SM-2504.10 INSTALLATION OF CONDUIT AND SUPPORTS INSIDE CONTAINMENT FOR MINI-PURGE CIRCUIT G1333 AND REINSTALLATION OF THE 1B HYDROGEN RECOMBINER CONDUIT AND CABLE

The purpose of this procedure is to control the installation of conduit and supports inside containment for circuit G1333, and reinstallation of the 1B hydrogen recombiner conduit and cable. This procedure will allow work to be accomplished in the Containment Building - all elevations.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-2512.76 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINES SW-1400 AND SW-1500; SERVICE WATER SUPPLY AND RETURN TO CV FAN COOLERS, AND SUPPLY TO A/C CHILLERS, IN CLEAN INTERMEDIATE BUILDING

The purpose of this procedure is to provide instructions for upgrade of pipe supports on Analysis Lines SW-1400 and SW-1500. This procedure allows work to be accomplished in the clean Intermediate Building - basement near service water piping and Intermediate Building - sub-basement.

SM-2512.96 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE FW-300; MAIN FEEDWATER FROM FW REG. VALVE TO B STEAM GENERATOR - COMPLETION OF ALL REMAINING PIPE SUPPORTS

The purpose of this procedure is to provide instruction for seismic upgrade of all remaining pipe supports on Analysis Line FW-300. This procedure allows work in the following areas of the B Main Feedwater Piping: Intermediate Building - clean side (FWU-39, 40, 41, 44); Turbine Building (FWU-28, 29).

SM-2512.99 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINES AFW-100, 200, 400 AND 500; AUXILIARY FEEDWATER DISCHARGES FROM MOTOR DRIVEN AUXILIARY FEEDWATER PUMPS A & B AND TURBINE DRIVEN AUXILIARY FEEDWATER PUMP

The purpose of this procedure is to provide instruction for upgrade of pipe supports on Analysis Lines AFW-100, 200, 300 and 400. This procedure allows work to be accomplished in the clean Intermediate Building - basement near feedwater pumps.

SM-2512.100 SEISMIC UPGRADE RELOCATION OF CIRCUIT R1913

The purpose of this procedure is to relocate circuit R1913 (from Containment Leak Test Panel to Leak Test Outlet Valve). This procedure will allow work to be accomplished in the Intermediate Building - clean side, basement, west end

SM-2512.101 SEISMIC SUPPORT UPGRADE - CCU-97, RHU-42, RHU-127, RHU-128, 129, AND 130

The purpose of this procedure is to provide instruction for upgrade of pipe supports on Analysis Line CC-260 (Component Cooling from 1A Containment Spray Pump), RHU-450 (Containment Spray Pump 1A and 1B Suction and Relief Lines and RH-350). This procedure allows work to be accomplished in the Auxiliary Building - basement.

SM-2512.102 SEISMIC UPGRADE - RELOCATION OF CONDENSATE PUMP DISCHARGE PIPING TO THE AFW SYSTEM

The purpose of this procedure is to control the relocation, testing, and turnover of section of condensate pump discharge piping to the AFW system. This procedure allows work to be accomplished in the Intermediate Building - cold side.

SM-2512.103 SEISMIC UPGRADE OF PIPE SUPPORTS - REMOVAL OF TWO FEEDWATER SUPPORTS PRIOR TO INSTALLATION OF FWU-27 AND FWU-29

The purpose of this procedure is to control the removal of supports FW-35 and FW-36 on main feedwater header. This procedue allows work to be accomplished in the Turbine Building - intermediate level at the feedwater header.

SM-2512.104 HYDROSTATIC TEST, ANALYSIS LINE MS-120 MAIN STEAM FROM MAIN STEAM HEADER TO TURBINE DRIVEN AUXILIARY FEEDWATER PUMP

The purpose of this procedure is to control the hydrostatic testing, and turnover of Analysis Line MS-120. This procedure allows work to be accomplished in the Intermediate Building near main steam header and turbine driven auxiliary feedwater pump.

SM-2512.105 SEISMIC UPGRADE - RELOCATION OF CIRCUITS R-940 AND R-984

The purpose of this procedure is to relocate Circuits R-940 and R-984 (from Pullbox 240 to Column 4C - G2) for CV pressure transmitters PT-947 and PT-948. This procedure will allow work to be accomplished in the Intermediate Building - clean side.

SM-2512.106 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CS-100 AND 200; CONTAINMENT SPRAY IN CONTAINMENT

The purpose of this procedure is to provide instruction for upgrade of pipe supports on Analysis Lines CS-100 and CS-200. This procedure allows work to be accomplished in Containment - basement.

SM-2512.107 SEISMIC UPGRADE OF PIPE SUPPORTS - INSTALLATION OF SUPPORTS ON ANALYSIS LINES FW-300 AND FW-301

The purpose of this procedure is to control the installation, testing and turnover of two supports, FWU-27 and FWU-29 on Analysis Line FW-300 and FW-301. This procedure allows work in the Turbine Building - intermediate floor.

SM-2512.108 SEISMIC UPGRADE OF PIPE SUPPORT SWU-191 ON ANALYSIS LINE SW-1000

The purpose of this procedure is to provide instruction for upgrade of pipe support SWU-191 on Analysis Line SW-1000, service water to CCW heat exchangers. This procedure allows work to be accomplished in the Auxiliary Building - operating floor next to the IB CCW heat exchanger.

SM-2512.109 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE AFW-100

The purpose of this procedure is to provide instruction for upgrade of additional pipe supports on Analysis Line AFW-100. This procedure allows work to be accomplished in the Intermediate Building - clean side, basement.

SM-2512.110 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CS-250; CONTAINMENT SPRAY RISER SECTION IN CONTAINMENT

The purpose of this procedure is to provide instructions for upgrade of pipe supports on Analysis Line CS-250. This procedure will allow work to be accomplished in the Containment vessel Containment Spray riser pipe sections adjacent to the containment wall.

SM-2512.111 MODIFICATION OF PIPE SUPPORT FWU-18 ON ANALYSIS LINE FW-301

The purpose of this procedure is to control the modification of pipe support FWU-18 by adding weld materials as directed in ECN 2512-195. This procedure allows work to be accomplished in the Intermediate Building steam header level - "A" feedwater line upstream of the flow venturi.

SM-2512.112 MODIFICATION OF V-311F/311C DRAIN LINE AND ASSOCIATED SUPPORT

The purpose of this procedure is to control the modification, testing, and turnover of piping and associated support for valve 311F/311C piping. This procedure allows work to be accomplished in the Containment basement, adjacent to the regenerative heat exchanger.

SM-2512.113 MODIFICATION OF PIPE SUPPORT SIU-17 ON ANALYSIS LINE SI-110 - COMPLY WITH NCR G86-108

The purpose of this procedure is to control the modification of pipe support SIU-17 by enlarging holes and adding washer plates. This procedure allows work to be accomplished in the Containment Building basement near A-sump.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-2606.6 PASS PANEL NUREG CALIBRATION VERIFICATION TEST

The purpose of this test is to verify that the PASS instrumentation meets the requirements of NUREG-0737 Section II b.3.

SM-2606.10 RELOCATION OF T3 CONNECTION TO RELIEF VALVE PRV1 FOR THE POST ACCIDENT SAMPLING SYSTEM

The purpose of this procedure is to relocate T3 connector to relief valve PRV1 to a point upstream of V9. This procedure allows work to be accomplished in the Intermediate Building - hot side and the Hot Shop.

SM-2606.11 MODIFICATION TO THE LGSP, ECP, AND BORON ANALYZER

The purpose of this procedure is to provide the necessary guidelines for a modification to the Liquid Gas Sample Panel (LGSP), Electrical Control Panel (ECP), and the Boron Analyzer in the Post Accident Sampling System. This procedure allows work to be accomplished in the Intermediate Building - hot side, Hot Shop and Auxiliary Building.

SM-2606.12 ELECTRICAL MODIFICATION OF THE POST ACCIDENT SAMPLING SYSTEM (PASS) PER DCN-5486-019

The purpose of this procedure is to control the installation of the Electrical Modification to the Post Accident Sampling System (PASS) per DCN-5486-019. This procedure allows work to be accomplished in the Intermediate Building - hot side, Hot Shop and Primary Water Treatment Room.

SM-2606.20A pH MONITOR ACCEPTANCE TEST

The purpose of this test procedure is to verify the calibration of the pH monitor.

SM-2606.20B DETERMINATION OF LIQUID DILUTION RATIO

The purpose of this procedure is to determine the liquid dilution ratio of the Post Accident Sampling System (PASS).

SM-2606.20C GAS DILUTION VERIFICATION

The purpose of this test is to establish the gas dilution ratios of the Post Accident Sampling System.

SM-2606.20E BORON ANALYZER AND CALIBRATION CHECK

The purpose of this test is to verify the Boron Analyzer Calibration.

SM-2606.20F PASS DEGASSING CALIBRATION

The purpose of this procedure is to calibrate the liquid degassing capability of the Post Accident Sampling System (PASS).

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-2799.1 ELECTRICAL INSTALLATION FOR THE RVLMS

The purpose of this procedure is to control the installation of the Electrical portion of the Reactor Level Monitoring System Modification. This will include associated cable for the RVLMS rack and the installation of the RVLMS rack. The P250 computer inverter must be removed prior to rack installation. This procedure work to be accomplished in Containment, Auxiliary Building - intermediate, Intermediate Building - basement, Cable Tunnel and Relay Room.

SM-2799.2 MECHANICAL INSTALLATION OF TUBING AND PRESSURE TRANSMITTERS FOR THE RVLMS

The purpose of this procedure is to control the installation and testing of the tubing and pressure transmitters for the Reactor Vessel Level Monitoring System Modification. This will include associated cable for the RVLMS rack and the installation of the RVLMS rack. The P250 computer inverter must be removed prior to rack installation. This procedure allows work to be accomplished in Containment, Auxiliary Building - intermediate, Intermediate Building - basement, Cable Tunnel and Relay Room.

SM-2799.3 MECHANICAL INSTALLATION OF PIPING ON THE REACTOR HEAD FOR THE RVLMS

The purpose of this procedure is to control the installation and testing of the reactor head piping for the Reactor Vessel Level Monitoring System. This procedure allows work to be performed in Containment.

SM-2799.5 RVLMS CABLE INSTALLATION - OUTSIDE CONTAINMENT

The purpose of this procedure is to control the installation of cable and conduit outside containment for the indication portion of the Reactor Vessel Level Monitoring System modification. No terminations are to be performed under this procedure. This procedures allows work to be accomplished in the Control Room, Relay Room, Air Handling Room, Intermediate Building and Auxiliary Building.

SM-2799.6 INSTALLATION OF RVLMS LOWER TAP CONNECTION

The purpose of this procedure is to control the installation and testing and turnover of the piping for the lower tap connection at incore flux thimble I-11. The procedure allows work to be accomplished in Containment, Sump A.

SM-2799.7 MECHANICAL INSTALLATION OF PIPING ON REACTOR HEAD FOR RVLMS

The purpose of this procedure is to control the testing and installation of the reactor head piping for the Reactor Vessel Level Monitoring System. This procedure allows work to be accomplished in Containment.

SM-2799.8 RVLMS - TUBING AND PRESSURE TRANSMITTERS

The purpose of this procedure is to control the installation and testing of the tubing and pressure transmitters for the Reactor Vessel Level Monitoring System. This procedure allows work to be accomplished in Containment.

SM-2799.9 ELECTRICAL INSTALLATION FOR RVLMS

The purpose of this procedure is to control the installation of the electrical portion of the Reactor Vessel Level Monitoring System modification. This procedure allows work to be accomplished in Containment.

[illegible]

[illegible]

SM-2799.10 ELECTRICAL TERMINATION OF RVLMS OUTSIDE CONTAINMENT

The purpose of this procedure is to control the installation of the electrical portion of RVLMS. This includes final continuity testing of wire/cable and terminations. This procedure allows work to be accomplished in the Control Building, Intermediate Building and Auxiliary Building.

SM-2799.11 RVLMS INPUT DATA TEST

The purpose of this procedure is to document the testing of inputs to the RVLM System. This procedure allows work to be accomplished in the Relay Room and Control Room.

SM-2799.12 RVLMS OUTPUT DATA TEST

The purpose of this procedure is to document the testing of outputs to the RVLM System. This procedure allows work to be accomplished in the Relay Room and Control Room.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3199.2 INSPECTION AND REPAIR OF THE VITAL BATTERY LOAD FLOW MONITORS

The purpose of this procedure is to provide instructions for the inspection and possible repair of the "A" and "B" battery load flow monitors. This procedure allows work to be accomplished in the "A" and "B" Battery Rooms.

SM-3199.2A SETPOINT TEST FOR VITAL BATTERY LOAD FLOW MONITORS

The purpose of this procedure is to provide the instructions for the alarm setpoint testing of the vital battery load flow monitors on the "A" and "B" batteries. This procedure allows work to be accomplished in the "A" and "B" Battery Rooms.

[illegible]

[illegible]

[illegible]

[illegible]

SM-3199.3 VITAL BATTERY LOAD FLOW MONITOR REWORK

The purpose of this procedure is to control the installation testing, turnover of the rework of the A.B. and TSC vital battery load flow monitors. This includes the amp-meter sections and voltage alarm sections. This procedure allows work to be accomplished in the "A" and "B" Battery Rooms and TSC Battery Room.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3258.1 REPLACEMENT OF SERVICE WATER VALVES FOR REACTOR COMPARTMENT COOLERS VALVES 4635; 4636, 4757, 4758

The purpose of this procedure is to control the installation, testing, and turnover of replacement butterfly valves on service water lines to and from reactor compartment coolers. This procedure will allow work to be accomplished in the Intermediate Building - hot side.

SM-3258.2 CHANGEOUT OF EIGHT INCH DIAMETER SERVICE WATER VALVES 4627, 4628, 4629, 4641, 4642, 4643; AND 4644

The purpose of this procedure is to control the installation, testing and turnover of replacement butterfly valves for containment fan cooler units 1A, 1B, 1C, and 1D. This procedure will allow work to be accomplished in the Intermediate Building - clean side basement.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3272.2 DETERMINATION AND REMOVAL OF P-250 COMPUTER

The purpose of this procedure is to control the removal and determination of the P-250 computer. This procedure will allow work to be accomplished in the Relay Room, Control Room, TSC and Turbine Building. The general purpose of this modification is to replace existing P-250 computer with new ppcs/sas computer system.

SM-3272.3 INSTALLATION OF STRUCTURAL STEEL MUX CABINETS AND AUX. TERMINATION ENCLOSURE IN COMPUTER ROOM

The purpose of this procedure is to control the installation, turnover of the structural steel and mux cabinets installed in the computer room. This procedure will allow work to be accomplished in the Relay Room, Air Handling Room and Computer Room.

SM-3272.4 TERMINATION OF COMPUTER INPUTS TO MUX CABINETS AND AUX. TERMINATIONS ENCLOSURE

The purpose of this procedure is to control the termination of computer inputs to the mux cabinets and aux. termination enclosure. This procedure will allow work to be accomplished in the Computer Room.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3272A.1 COMPUTER ROOM HALON SYSTEM - FIRE DETECTION SYSTEMS

The purpose of this procedure is to remove existing smoke detectors, conduits and wiring of the Halon System S07 and Pyrotonics Zone 6 under the raised floor in the Computer Room. Fire detection zone Z17 detectors on the ceiling of the computer room will be relabeled S07 and connected in place of the original S07 detectors. This procedure will allow work to be accomplished in the Relay Room, Computer Room and Control Room.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3272B.1 REMOVAL AND RELOCATION OF COMPUTER ROOM HALON PIPING

The purpose of this procedure is to relocate the Computer Room Halon piping from under the raised floor to the ceiling. This procedure will allow work to be accomplished in the Relay Room.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3296.1630 STRUCTURAL UPGRADE - TURBINE BUILDING WEST WALL

The purpose of this procedure is to control the structural upgrade of the west wall of the Turbine Building, on the operating floor, as shown on Drawing 33013-1630. There is also minor work on the intermediate floor as shown on Drawing 33013-1633. This modification is to upgrade the structural integrity of Ginna Station for SEP Topics II-2.A and III-2.

SM-3296.1631 STRUCTURAL UPGRADE - EAST WALL, FASCADE STRUCTURE

The purpose of this procedure is to control the structural upgrade of the east wall of the fascade structure as shown on Drawing 33013-1631 sheets 1 and 2.

SM-3296.1632A STRUCTURAL UPGRADE - TURBINE BUILDING, EAST WALL

The purpose of this procedure is to control the structural upgrade of the east wall of the Turbine Building, above the operating floor, as shown on Drawing 33013-1632.

SM-3296.1635 STRUCTURAL UPGRADE - NORTH, EAST, WEST AND SOUTH WALLS - FASCADE STRUCTURE

The purpose of this procedure is to control the structural upgrade of the north, south, west and east walls of the fascade structure as shown on Drawing 33013-1635 sheets 1, 2 and 3. Also included is the disposition of NCR-G85-160, for the east wall section of the fascade.

SM-3296.1636 STRUCTURAL UPGRADE - TURBINE BUILDING SOUTH WALL

The purpose of this procedure is to control the structural upgrade of the south wall of the Turbine Building, above the operating floor, as shown on Drawing 33013-1636.

SM-3296.1637A STRUCTURAL UPGRADE OF THE EAST WALL - AUXILIARY BUILDING

The purpose of this procedure is to control the installation and turnover of the structural upgrade of the east wall of the Auxiliary Building, including the replacement of existing bolts as required to satisfy RG&E Surveillance Report 85-0575.

SM-3296.1638 STRUCTURAL UPGRADE - SOUTH WALL AUXILIARY BUILDING

The purpose of this procedure is to control the installation of structural steel, welding, Hilti Bolts, grouting, and high strength bolts as required to structurally upgrade the south wall of the Auxiliary Building at and above the operating floor level. This procedure will allow work to be accomplished in the Auxiliary Building operating floor along the south wall line.

SM-3296.1639 STRUCTURAL UPGRADE - TURBINE BUILIDING NORTH AND SOUTH WALL TRUSSES ABOVE THE CRANE RAILS AND FASCADE STRUCTURE EAST AND SOUTH WALLS

The purpose of this procedure is to control the structural upgrade of the north and south walls of the Turbine Building operating floor elevation incorporating the trusses above the crane rails and the fascade structure east and south walls. This procedure allows work to be accomplished in the Turbine Building operating floor north and south walls, and the Fascade east and south walls.

SM-3296.1640 STRUCTURAL UPGRADE - ROOF AND OPERATING FLOOR, TURBINE BUILDING

The purpose of this procedure is to control the structural upgrade of the Turbine Building roof trusses and vertical columns along column line 5i.

SM-3296.1641 STRUCTURAL UPGRADE - NORTH WALL AUXILIARY BUILDING

The purpose of this procedure is to control the installation of structural steel, welding, Hilti Bolts, grouting and high strength bolts as required to structurally upgrade the north wall of the Auxiliary Building at and above the operating floor level. This procedure allows work to be accomplished in the Auxiliary Building operating floor along the north wall line.

SM-3296.1642 STRUCTURAL UPGRADE - NORTH WALL - COLUMN 8A AUXILIARY BUILDING

The purpose of this procedure is to control the installation of structural steel, welding, Hilti Bolts, grouting and high strength bolts as required to structurally upgrade the north wall column 8a Auxiliary Building. This procedure allows work to be accomplished in the Auxiliary Building operating floor along the north wall line.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3319.8 PHASE ROTATION CHECK PRIOR TO BREAKER CHANGEOUT ON MCC-1C, 1E AND 1G

The purpose of this procedure is to perform a documented survey of phase rotation on breakers to be replaced prior to or during the 1986 spring outage. This procedure allows work to be accomplished in the Auxiliary Building - top floor and Screenhouse - operating floor.

SM-3319.16 ACTIONS TO BE TAKEN IN THE EVENT AN HFB BREAKER FAILS ITS FUNCTIONAL TEST

The purpose of this procedure is to provide the necessary instruction to reset the HFB trip setpoint after a functional test failure.

SM-3319.17 MCC-1E BREAKER REPLACEMENT

The purpose of this procedure is to provide instructions for breaker replacement at specified positions on MCC-1E in the Auxiliary Building operating floor.

SM-3319.22 PHASE ROTATION CHECK OF BREAKERS REPLACED ON MCC-1E

The purpose of this procedure is to verify proper phase rotation of breakers installed in MCC-1E.

SM-3319.23 FUNCTIONAL TESTING OF REPLACEMENT BREAKERS ON MCC-1E

The purpose of this procedure is to provide the necessary direction to allow functional testing of the replacement breakers on MCC-1E. This procedure allows work to be accomplished in the Auxiliary Building - top level, intermediate level, basement level, Intermediate Building and Containment.

SM-3319.24 PHASE ROTATION CHECK PRIOR TO BREAKER CHANGEOUT ON MCC-1A, MCC-1D, MCC-1J AND MCC-1H

The purpose of this procedure is to perform a documented survey of phase rotation on breakers to be replaced during the spring '85 outage. This procedure allows work to be accomplished in the Auxiliary Building - intermediate level, Turbine Building - basement level, "1A" Diesel Generator Room and "1B" Diesel Generator Room.

SM-3319.26 PHASE ROTATION CHECK ON BREAKERS REPLACED ON MCC-1D AND 1J

The purpose of this procedure is to verify proper phase rotation of breakers installed in MCC-1D and 1J. This procedure allows work to be accomplished in the Auxiliary Building - intermediate floor and Diesel Generator "1B" Room.

SM-3319.27 FUNCTIONAL TESTING OF REPLACEMENT BREAKERS ON MCC-1D AND MCC-1J

The purpose of this procedure is to provide the necessary direction to allow functional testing of the replacement breakers on MCC-1D and MCC-1J. This procedure will allow work to be accomplished in the Auxiliary Building, 1B Diesel Generator Room and Containment.

SM-3319.30 PHASE ROTATION CHECK OF BREAKERS REPLACED IN MCC-1A

The purpose of this procedure is to verify proper phase rotation of breakers installed in MCC-1A. This procedure allows work to be accomplished in the Turbine Building - basement.

SM-3319.31 FUNCTIONAL TESTING OF REPLACEMENT BREAKERS ON MCC-1A

The purpose of this procedure is to provide the necessary direction to allow functional testing of the replacement breakers on MCC-1A. This procedure allows work to be accomplished in the Intermediate Building, Turbine Building and Control Room.

SM-3319.32 MCC-1H BREAKER REPLACEMENT

The purpose of this procedure is to provide instructions for breaker replacement at specified positions on MCC-1H. This procedure allows work to be accomplished in the "1A" Diesel Generator Room.

SM-3319.33 PHASE ROTATION CHECK OF BREAKERS REPLACED ON MCC-1H

The purpose of this procedure is to verify proper phase rotation of breakers installed in MCC-1H. This procedure allows work to be accomplished in the "1A" Diesel Generator Room.

SM-3319.34 FUNCTIONAL TESTING OF REPLACEMENT BREAKERS ON MCC-1H

The purpose of this procedure is to provide the necessary direction to allow functional testing of the replacement breakers on MCC-1H in the "1A" Diesel Generator Room.

[illegible]

[illegible]

[illegible]

[illegible]

SM-3319.35 MCC-1C BREAKER REPLACEMENT

The purpose of this procedure is to provide instructions for breaker replacement at specified positions on MCC-1C. This procedure will allow work to be accomplished in the Auxiliary building - operating floor.

SM-3319.36 PHASE ROTATION CHECK OF BREAKERS REPLACED ON MCC-1C

The purpose of this procedure is to verify proper phase rotation of breakers installed in MCC-1C. This procedure will allow work to be accomplished in the Auxiliary Building - operating floor.

SM-3319.37 FUNCTIONAL TESTING OF REPLACEMENT BREAKERS ON MCC-1C

The purpose of this procedure is to provide the necessary direction to allow functional testing of the replacement breakers on MCC-1C. This procedure will allow work to be accomplished in the Auxiliary Building - top level, intermediate level, basement level, Intermediate Building and Containment.

SM-3319.41 TROUBLESHOOTING WESTINGHOUSE TYPE W MOTOR CONTROLLER TRIPS

The purpose of this procedure is to provide troubleshooting criteria for Westinghouse Type W Motor Controllers.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3322.1 STRUCTURAL BRACING ON COLUMN LINES IN THE TURBINE BUILDING AND AUXILIARY BUILDING

The purpose of this procedure is to control the installation of structural bracing upgrade for column line 10 to 11 at elevation 308'-8" in the Turbine Building and Column Line 11A at elevation 271'-0" in the Auxiliary Building. This procedure will allow work to be accomplished in the Turbine Building - south wall on turbine floor, and operating floor in the Auxiliary Building.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3505.2 CONTROL AND RELAY MODERNIZATION OF 13A INSTRUCTIONS

The purpose of this procedure is to provide guidance of work being done at 13A and the effects on Ginna Station. The general purpose of this modification is to upgrade Station 13A to meet the requirements for reliability and security as developed by NYPP. No. 6 transformer must be removed from service during the 1986 refueling outage in order to perform modernization work. During this out of service time, offsite power will be available from 34 kV Circuit 751. After part one of the modernization at 13A, Part 2 will be done. This is modernization of 115kV Bus 2 and 1.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3582.6 STRUCTURAL STEEL UPGRADE, TURBINE BUILDING STEEL AT FLOOR ELEVATION 271'-0". FIX TB-1

The purpose of this procedure is to provide the instructions necessary to perform the structural steel upgrade in the Turbine Building at floor elevation 271'-0", east end of the feedwater header.

SM-3582.8 STRUCTURAL STEEL UPGRADE, TURBINE BUILDING STEEL AT FLOOR ELEVATION 271'-0", FIX TB-3

The purpose of this procedure is to provide the instructions necessary to perform the structural steel upgrade in the Turbine Building at floor elevation 271'-0", east end of the feedwater header.

SM-3582.42 MODIFICATION ON MAIN FEEDWATER HEATER SUPPORT TB-2

The purpose of this procedure is to control the modification and turnover of feedwater header support TB-2, this procedure allows work to be accomplished in the Turbine Building - mezzanine level at the feedwater header.

SM-3582.43 STRUCTURAL STEEL UPGRADE - PLATFORM STEEL SUPPORT IN COLUMN LINE N'2, WEST OF COLUMN LINE 8A

The purpose of this procedure is to control the installation, testing and turnover of a new column to support platform still above CCW pumps as per NCR-G86-084. This procedure allows work to be accomplished in the Auxiliary Building - operating level adjacent to CCW pumps.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3651.1 AUXILIARY BUILDING CRANE GIRDER MODIFICATION

The purpose of this procedure is to control the installation, and turnover of additions to the Auxiliary Building Crane bridge girders which will act as longitudinal and lateral stiffeners. This procedure will allow work to be accomplished in the Auxiliary Building. The general purpose of this modification is to provide guidelines for the seismic upgrade of the Auxiliary Building 40 Ton Crane Bridge girders.

SM-3651.2 AUXILIARY BUILDING CRANE TROLLEY AND BRIDGE MODIFICATIONS

The purpose of this procedure is to control the installation and turnover of structural, mechanical and electrical modifications to the Auxiliary Building 40 Ton Crane Trolley and Bridge. This procedure will allow work to be accomplished in the Auxiliary Building and Turbine Building. The general purpose of this modification is to provide guidelines for the upgrade of the Auxiliary Building 40 Ton Crane to the Single Failure - Proof requirements of NUREG-0554.

SM-3651.3 MOBILIZATION OF AUXILIARY BUILDING CRANE TROLLEY

The purpose of this procedure is to control the mobilization of the Auxiliary Building 40 Ton Crane Trolley out of, and back into the Auxiliary Building. This procedure will allow work to be accomplished in the Auxiliary Building and Turbine Building.

SM-3651.4 FUNCTIONAL TESTING AND TURNOVER OF THE AUXILIARY BUILDING CRANE MODIFICATIONS

The purpose of this procedure is to control the functional testing and turnover of the Auxiliary Building Crane Modifications.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3666.2 RACKS NUMBER 1 AND 2; SIDEPULL STRUCTURAL MODIFICATION

The purpose of this procedure is to control the installation of the structural components required to side pull Spent Fuel Pool Racks Number 1 and 2. This procedure will allow work to be accomplished in the Auxiliary Building and Spent Fuel Pool and Walkway.

SM-3666.6 SFP RACK MODIFICATION

The purpose of this procedure is to provide direction for the removal of lead-in guides from water boxes, provide direction for the replacement of water box base plates, provide direction for installation of "BORAFLEX" poison inserts into all cells, provide direction for installation of individual cell identifiers provide direction for removal of the four existing lifting lugs and for modification of lifting lug cells to spent fuel storage cells.

SM-3666.7 ACCEPTANCE TESTING; SPENT FUEL POOL RACK MODIFICATION

The purpose of this procedure is to provide guidance for acceptance testing of the modification to the Spent Fuel Pool Storage Racks. The second purpose of this procedure is to determine acceptability of the Portable Funnel. This procedure will allow work to be accomplished in the Auxiliary Building and Decontamination Pit.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3678.1 INSTALLATION OF AN OVEREXCITATION RELAY

The purpose of this procedure is to control the installation, testing and turnover of the overexcitation relay. This procedure will allow work to be accomplished in the Control Building and Turbine Building.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3679.1 GENERATOR SYNCHRONIZING RELAY

The purpose of this procedure is to control the installation, testing and turnover of a synchronizing relay and auxiliary relays at Station 13A. This procedure will allow work to be accomplished in the Control Building.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3681.1 TEST BORING NEXT TO GSU TRANSFORMER

The purpose of this procedure is to control the test boring necessary to ensure that the soil under present GSU transformer will support new GSU transformer. The general purpose of this modification is to prepare for replacement of GSU transformer.

SM-3681.2 INSTALLATION OF FULL POINTS FOR THE GSU TRANSFORMER REPLACEMENT

The purpose of this procedure is to control the installation, testing and turnover of pull points. These pull points will be used for removal of the existing GSU transformer and replacement with a new transformer, in the event of a transformer failure. This procedure will allow work to be accomplished in the Transformer Yard and Plant Roadway behind the Equipment Hatch.

SM-3681.3 INSTALLATION OF FULL POINT #3 FOR GSU TRANSFORMER

The purpose of this procedure is to control the installation, testing and turnover of steel clips, angles and associated hardware necessary to provide a structural pull-point attachment north of the existing GSU transformer. This procedure will allow work to be accomplished in the Transformer Yard.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3693.1 DIESEL GENERATOR 1B FEEDER BREAKER MECHANICAL INSTALLATION

The purpose of this procedure is to control the installation of the mechanical portion of the new feeder breaker for the 1B Diesel Generator. This includes installation of the new breaker enclosure, the new cable tray and supports. This procedure will allow work to be accomplished in the Diesel Generator Room and Vault.

SM-3693.2 DIESEL GENERATOR 1B FEEDER BREAKER ELECTRICAL INSTALLATION

The purpose of this procedure is to control the installation, testing and turnover of the electrical portion of the new feeder breaker for the 1B Diesel Generator. This includes cable installation and the control of testing and turnover. This procedure will allow work to be accomplished in the 1B Diesel Generator Room.

SM-3693.3 DIESEL GENERATOR 1B FEEDER BREAKER PREOPERATIONAL TESTING

The purpose of this procedure is to control the testing of the cable and breakers installed under SM-3693.2. This procedure will allow work to be accomplished in the 1B Diesel Generator Room and the Screen House.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3698.3 REACTOR TRIP BYPASS BREAKER UPGRADE

The purpose of this procedure is to control the installation of Trip Signal test switches. Bypass Breaker indication, and Bypass Breaker interlocks. This will include welding and grinding on the Main Control Board. This procedure will allow work to be accomplished in the MCB, Relay Room and Intermediate Building - basement.

SM-3698.4 REACTOR TRIP BYPASS BREAKER MODIFICATION TESTING

The purpose of this procedure is to control the testing and turnover of the modification to the Control Board, Reactor trip Bypass Breaker cubicles, and Fox Racks per EWR-3698. This procedure will allow work to be accomplished in the Control Room, Relay Room and Intermediate Building - basement.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3749.4 AOV-1599 POSITION INDICATION MODIFICATION FUNCTIONAL TEST

The purpose of this procedure is to control the testing and turnover of this modification to the plant for normal use. Testing will involve stroking the valve from MCB, verifying valve interlocked with R-11/R-12 air pump, and verify valve fails closed on (1) loss control power, (2) off of instrument air, and (3) containment isolation signal. This procedure will allow work to be accomplished in the Control Room, Relay Room and Intermediate Building - clean side.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3766.1 REPLACEMENT OF CONTAINMENT SPRAY CHECK VALVE #862A

The purpose of this procedure is to control the installation, testing and turnover of a replacement of the Containment Spray pump 1A discharge check valve (862A) with a seismically qualified valve which will provide for Containment isolation of penetration #105. This procedure will allow work to be accomplished in the Auxiliary Building - basement level, north of the shield wall (access via RWST gate).

SM-3766.2 REPLACEMENT OF CONTAINMENT SPRAY CHECK VALVE #862B

The purpose of this procedure is to control the installation, testing and turnover of a replacement of the Containment Spray pump 1A discharge check valve (862B) with a seismically qualified valve which will provide for Containment isolation at penetration #109. This procedure will allow work to be accomplished in the Auxiliary Building - basement level, north of the shield wall (access via RWST gate).

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3817.1 INSTALLATION OF CORS TIE-IN TO EXISTING AFW RETURN LINE

The purpose of this procedure is to control the installation, testing and turnover of a tie-in to the AFW return lines at the condensate storage tanks in the Service Building. This procedure will allow work to be accomplished in the Service Building - basement.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3866.1 INSTALLATION OF THE RADIATION MONITORING SYSTEM UPGRADE MODIFICATION

The purpose of this procedure is to provide the necessary guidelines to install three new radiation monitors and the upgrade of R-9. This procedure allows work to be accomplished in the Auxiliary Building, Intermediate Building and Control Room.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3891.4 "1B" VITAL BATTERY REPLACEMENT

The purpose of this procedure is to control the installation of new battery cells to replace existing vital battery 1B. This procedure will allow work to be accomplished in the "1B" Battery Room. The general purpose of this modification is to install new compatible battery systems consisting of batteries, chargers and battery racks.

SM-3891.5 BATTERY CHARGER 1B1 REPLACEMENT AND MODIFICATION TO 1A BATTERY SUPPORT

The purpose of this procedure is to control the installation of this modification including removal of existing 75 Amp Battery Charger 1B1 and mounting pad, removal of existing cross-tie wiring and switches; installation of a new 200 Amp Charger cabinet and associated switching, conduit and wiring, and modification of the 1A Battery support. This procedure will allow work to be accomplished in the "A" Battery Room, "B" Battery Room, 1A D/G Room, Auxiliary Building floor, cable tunnel and manhole duct bank from Aux. Bldg. Intermediate floor to "B" Battery Room. The general purpose of this modification is to install new compatible Battery Systems consisting of batteries, chargers, battery racks and associated wiring.

SM-3891.6 FUNCTIONAL TESTING OF 1B STATION BATTERY AND 1B1 BATTERY CHARGER

The purpose of this procedure is to control the testing and turnover of the 1B Vital Battery system, including the battery cells and the 200 Amp charger. This procedure will allow work to be accomplished in the 1B Battery Room.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3895.1 STATE BLOCKS MODIFICATION

The purpose of this procedure is to control the installation and turnover of the rewiring of relays to incorporate the use of State Blocks for the Emergency Diesel Generators, Circulating Water Pumps, Feedwater Pumps, 4160V Bus 11A and 11B Undervoltage System. This procedure will allow work to be accomplished in the Auxiliary Building - 480V Bus 14 & 16, Screen House - 480V Bus 17 & 18, Turbine Building - 4160V Bus 11A & 11B and Relay Room.

SM-3895.1A STATES BLOCK MODIFICATION OPERABILITY TEST

The purpose of this procedure is to provide instructions for the testing of relays which had wiring modifications done under EWR 3895, Install States Blocks. This procedure will allow work to be accomplished in the Auxiliary Building - 480V Bus 14 & 16, Screen House - 480V Bus 17 & 18, Turbine Building - 4160V Bus 11A & 11B and Relay Room.

SM-3895.2 STATES BLOCKS MODIFICATION

The purpose of this procedure is to control the installation, testing and turnover of States Blocks. This procedure will allow work to be accomplished in the Turbine Building, Control Building, and 1A and 1B Diesel Generator Rooms.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3986.4 APPENDIX R - AUXILIARY BUILDING RELOCATION OF CIRCUITS L400 AND E53

The purpose of this procedure is to provide the necessary guidance to perform the installation of conduit, conduit supports, pulling of wire/cables for circuits L400 (combination of original Circuit L400 & L400A) and E53. Included in this phase of the installation is the tagging/testing of new wires. No terminations will be included herein. This procedure will allow work to be accomplished in the Auxiliary Building.

SM-3986.5 EMERGENCY DIESEL GENERATOR VAULT 1B APPENDIX R CABLE FIRE BARRIER UPGRADE

The purpose of this procedure is to provide instructions for the upgrade of the Fire barrier in the 1B Diesel Generator Vault. This procedure will allow work to be accomplished in the 1B Emergency Diesel Generator Vault.

SM-3986.6 VALVE 202 TRANSFER SWITCH RELOCATION

The purpose of this procedure is to control the relocation, testing, and turnover of the transfer switch for letdown orifice isolation Valve 202. This procedure will allow work to be accomplished in the Auxiliary Building Basement.

SM-3986.7 1B BATTERY ROOM PENETRATION INSTALLATION

The purpose of this procedure is to control the installation and turnover of a new penetration between the 1B Battery Room and the Turbine Building, and conduit and cable for Turbine Building DC power. Terminations will be performed under a separate SM procedure. This procedure will allow work to be accomplished in the Turbine Building Basement, and 1B Battery Room.

SM-3986.8 PT-478 CIRCUIT REPLACEMENT FOR APPENDIX R

The purpose of this procedure is to control the installation, testing, and turnover of the replacement and relocation of the electrical circuit for steam generator pressure transmitter PT-478. This procedure will allow work to be accomplished in the Intermediate Building Basement, Air Handling Room, Relay Room and Control Room. The general purpose of this modification is to relocate the circuit to provide for access to be able to fire protect the circuit.

SM-3986.9 CHARGING PUMP 1A CIRCUIT RELOCATION FOR APPENDIX R

The purpose of this procedure is to control the installation, testing, and turnover of the power circuit relocation for the 1A charging pump, to allow for fire protection wrapping. This procedure will allow work to be accomplished in the Auxiliary Building Basement, Charging Pump Room, and Auxiliary Building Intermediate.

SM-3986.10 APPENDIX R FIRE WRAP - OUTSIDE CONTAINMENT

The purpose of this procedure is to control the installation and turnover of the HEMYC System One Hour Rated Fire Barrier to various conduits and cable trays as delineated in this procedure. This procedure will allow work to be accomplished in the B Battery Room, Intermediate Building and Auxiliary Building.

SM-3986.11 APPENDIX R - CHARGING PUMP WALL UPGRADE

The purpose of this procedure is to control the installation, testing and turnover of the upgrading of the Charging Pump Room south wall, including a fire door and ventilation fire damper. This procedure will allow work to be accomplished in the Charging Pump Room. The general purpose of this modification is to upgrade the Charging Pump Room south wall to a three hour rated fire barrier.

SM-3986.12 AUXILIARY BUILDING CABLE TRAY 111 SUPPORT MODIFICATION

The purpose of this procedure is to control the installation, and turnover of new supports for cable tray 111. This procedure will allow work to be accomplished in the Auxiliary Building - Intermediate Level.

SM-3986.13 FIRE SUPPRESSION SYSTEM S04 PIPING MODIFICATION

The purpose of this procedure is to control the installation, testing, and turnover of piping modifications to S04 fire suppression system. This procedure will allow work to be accomplished in the Auxiliary Building.

SM-3986.14 TERMINATION OF TURBINE BUILDING DC POWER CIRCUIT E74

The purpose of this procedure is to control the termination, testing and turnover of the relocated portion of circuit E74. This procedure will allow work to be accomplished in the Turbine Building Basement B Battery Room.

SM-3986.15 TERMINATION OF AUXILIARY BUILDING DC POWER CIRCUIT E53

The purpose of this procedure is to control the termination, testing and turnover of the relocated portion of circuit E53. This circuit provides "A" train DC to the Auxiliary Building. This procedure will allow work to be accomplished in the Auxiliary Building.

SM-3986.16 TERMINATION OF CIRCUIT L400 - 1A CHARGING PUMP CONTROL

The purpose of this procedure is to control the removal of the existing L400 and L400A circuits and the termination testing and turnover of the new 1A Charging Pump circuit L400. This procedure will allow work to be accomplished in the Auxiliary Building and Charging Pump Room.

SM-3986.17 APPENDIX R FIRE WRAP - INSIDE CONTAINMENT

The purpose of this procedure is to control the installation and turnover of the HEMYC System One Hour Rated Fire Barrier to various conduits as delineated in this procedure. This procedure will allow work to be accomplished in Containment.

SM-3986.18 SOURCE RANGE DETECTOR N-31 CABLE RELOCATION

The purpose of this procedure is to control the installation, testing, and turnover of the rerouting of the N-31 Source Range Detector cable inside Containment (RG&E Circuit Schedule R1467). This procedure will allow work to be accomplished in Containment. The general purpose of this modification is to reroute the N-31 cable inside Containment to allow for fire protection of the cable.

SM-3986.19 PT-420A AND LT-433 CIRCUIT RELOCATION

The purpose of this procedure is to control the installation, testing, and turnover of the relocation of circuits for Pressurizer pressure and level transmitters; PT-420A and LT-433, to allow for fire protection. This procedure will allow work to be accomplished in Containment.

SM-3986.20 EMERGENCY LIGHTING SUPPORT INSTALLATION

The purpose of this procedure is to control the installation, testing, and turnover of the Seismic Emergency light supports required for Appendix R. This procedure will allow work to be accomplished in the 1A D/G Room, Auxiliary Building and Screenhouse.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4037.1 UPGRADE OF EXISTING EBERLINE CT-1 EFFLUENT MONITOR CONTROL CONSOLES LOCATED IN CONTROL ROOM AND TSC TO CT-1B CONSOLES

The purpose of this procedure is to provide the guidance and controls necessary to install, test and turnover to the station the upgraded CT-1B Eberline Consoles. This procedure allows work to be accomplished in the Control Room ad Technical Support Center.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4039.1 SPENT FUEL POOL BRIDGE HOIST REPLACEMENT

The purpose of this procedure is to control the installation, testing and turnover of replacement hoists over the Spent Fuel Pool. This procedure allows work to be accomplished in the Auxiliary Building - Spent Fuel Pool area.

SM-4039.2 SPENT FUEL POOL BRIDGE HOIST REWORK

The purpose of this procedure is to control the installation, testing and turnover of the replacement of the west hoist and the adjustment of the hook suspension of both hoists over the Spent Fuel Pool.

SM-4039.3 REACTOR HEAD LIFT RIG MONORAIL HOIST REPLACEMENT

The purpose of this procedure is to control the installation, testing and turnover of the hoist replacement on the Reactor Head Lift Rig Monorail. This procedure allows work to be accomplished in the Containment Building - top floor.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4043.1 CABLE INSTALLATION FOR THE INCORPORATION OF THE RCP'S KEYPHASOR PROXIMITY TRANSDUCERS

The purpose of this procedure is to control the cable installations for the incorporation of the RCP's Keyphasor Proximity Transducer into the RCP Vibration Monitoring System. This procedure will allow work to be accomplished in the Control Building, Intermediate Building - cold side, and Containment Building

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4044.1 RECORDER REPLACEMENT

The purpose of this procedure is to control the installation, testing and turnover of MCB Recorders (RK-28 A and B, RK-29, RK-30, RK-30A, RK-23). This procedure will allow work to be accomplished in the Control Building.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4057.1 LEADING EDGE FLOW METER - ELECTRICAL INSTALLATION

The purpose of this procedure is to control the electrical installation of the Leading Edge Flow Meter. This procedure will allow work to be accomplished in the Turbine Building - intermediate level, Technical Support Center and Relay Room.

SM-4057.2 LEADING EDGE FLOW METER - MECHANICAL INSTALLATION

The purpose of this procedure is to control the mechanical installation, testing and turnover of the Leading Edge Flow Meter. This procedure allows work to be accomplished in the Turbine Building - intermediate level.

SM-4057.3 LEFM ACCEPTANCE TESTING

The purpose of this procedure is to control the testing and turnover of the Leading Edge Flow Meter installation. This procedure will allow work to be accomplished in the Turbine Building - intermediate floor and the Technical Support Center.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4064.1 INSTALLATION AND TESTING OF THE NEW POWER SUPPLY FOR SSA SATELLITE STATION "A"

The purpose of this procedure is to control the installation, testing and turnover of satellite station "A" power supply modifications. This procedure allows work to be accomplished in the Control Building, Relay Room and Control Room.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4067.1 TRANSFER OF CONTROL FOR SWITCHES 90812, 7X13A72 AND 91302 CONTROL FROM GINNA TO POWER CONTROL AND REMOVAL OF ASSOCIATED CIRCUIT CONTROLS FROM 115KV BENCHBOARD

The purpose of this procedure is to control the work associated with switches 90812, 7X13A72 and 91302 at Ginna. This procedure will allow work to be accomplished in the Control Room and Relay Room.

SM-4067.2 OPERATIONAL TEST OF SWITCHES 90812, 7X13A72 AND 91302 AT GINNA FOR CIRCUITS 908 AND 913

The purpose of this procedure is to control the testing of switches 90812, 7X13A72 and 91302. This procedure will allow work to be accomplished in the Control Room.

SM-4067.3 TRANSFER OF CONTROL FOR SWITCHES 6T13A72, 8X13A72 AND 91202 CONTROL FROM GINNA TO POWER CONTROL AND REMOVAL OF ASSOCIATED CIRCUIT CONTROL FROM 115KV BENCHBOARD

The purpose of this procedure is to control the work associated with switches 6T13A72, 8X13A72 and 91202 at Ginna. this procedure will allow work to be accomplished in the Control Room and Relay Room.

SM-4067.4 OPERATIONAL TEST OF SWITCHES 6T13A72, 8X13A72 AND 91202 AT GINNA FOR CIRCUIT 912

The purpose of this procedure is to control testing of switches 6T13A72, 8X13A72 and 91202. This procedure will allow work to be accomplished in the Control Room.

SM-4067.5 REPLACEMENT OF 115KV BENCHBOARD SECTIONS ONE, TWO AND THREE AND INSTALLATION OF NEW AUXILIARY BENCHBOARD - RIGHT SECTION

The purpose of this procedure is to control the installation, removal, testing and turnover of the new right section Auxiliary Benchboard and its components also benchboard sections one, two and three will be removed. This procedure will allow work to be accomplished in the Control Room, Turbine Building and Relay Room. The general purpose of this modification is to replace the 115KV benchboard with new status board and replace existing benchboards for fire control panel with new auxiliary benchboards for fire system and control room HVAC system.

SM-4067.6 TRANSFER OF CONTROLS FOR SWITCHES 91102 AND 90912 FROM GINNA TO POWER CONTROL AND RELOCATION OF CIRCUITS FOR #1 GENERATOR AND #9 BUS TIE

The purpose of this procedure is to control the work associated with switches 91102, 90912, 9X13A72, 1G13A71, 9X13A73 and 1G13A72 at Ginna. This procedure will allow work to be accomplished in the Control Room and Relay Room.

SM-4067.7 OPERATIONAL TEST OF SWITCHES 91102, 90912, 76702, 9X13A72, 9X13A73, 1G13A72 AND 1G13A71

The purpose of this procedure is to control testing of switches 91102, 90912, 9X13A72, 9X13A73, 1G13A72, 76702 and 1G13A71. This procedure will allow work to be accomplished in the Control Room.

SM-4067.8 INSTALLATION OF NEW LEFT AUXILIARY BENCHBOARD SECTION AND 13A DISPLAY

The purpose of this procedure is to control the installation, testing and turnover of the new left section Auxiliary Benchboard, its components and the 13A Display. This procedure will allow work to be accomplished in the Control Room, Turbine Building and Relay Room.

SM-4067.9 REMOVAL OF 115KV BENCHBOARD SECTIONS 4 THROUGH 9 AND RELOCATION OF SWITCHES 9X13A73 AND 1G13A71 MAIN CONTROL BOARD

The purpose of this procedure is to control the installation, removal and turnover of the 115KV Benchboard Sections 4 through 9 and relocation of switches 9X13A73 and 1G13A71 on main control board. This procedure will allow work to be accomplished in the Control Board Relay Room.

SM-4067.10 INSTALLATION OF NEW CENTER AUXILIARY BENCHBOARD SECTION AND RELOCATION OF FIRE CONTROL PANEL CONTROLS

The purpose of this procedure is to control the installation, testing and turnover of the new center section Auxiliary Benchboard, its components and the relocation of fire panel controls to new left benchboard section. This procedure will allow work to be accomplished in the Control Room, Turbine Building and Relay Room.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4068.1 RADIATION MONITORING SYSTEM UPGRADE

The purpose of this procedure is to control the installation, testing and turnover of new area radiation monitors R1-R9. This procedure allows work to be accomplished in the Control Room, Auxiliary Building, Intermediate Building, Containment and the Service Building.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4075.1 INSTALLATION TEST OF T.S.C. COMPUTER ROOM AND HVAC UNITS

The purpose of this procedure is to control the installation, and turnover of the two TSC computer room package HVAC units. This procedure allows work to be accomplished in the Technical Support Center and the Technical Support Center Roof.

SM-4075.2 INSTALLATION OF TSC 7 POWER DISTRIBUTION PANEL AND START-UP OF T.S.C. COMPUTER ROOM HVAC UNIT

The purpose of this procedure is to control the installation, testing and turnover of the two TSC computer room package HVAC units. This procedure allows work to be accomplished in the Technical Support Center.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4086.1 INSTALLATION OF THE CONTAINMENT HATCH CLOSURE PLATE

The purpose of this procedure is to control the installation of the Containment Hatch Closure Plate. This will allow refueling and Steam Generator work to occur concurrently. This procedure will allow work to be accomplished in the Containment Operating floor by equipment hatch, and Outside of Containment by Transformer Yard.

SM-4086.2 INSTALLATION OF THE CONTAINMENT HATCH CLOSURE PLATE STORAGE STAND

The purpose of this procedure is to control the installation, testing and turnover of the Containment Hatch Closure Plate Storage Stand. This procedure will allow work to be accomplished Outside Containment Hatch by Transformer Yard.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4099.1 CONTROL ROOM DOOR #51 LATCH MODIFICATION

The purpose of this procedure is to control the installation, testing and turnover of Door #51 Control and Locking mechanisms. This job is listed under safeguards information per 10CFR73 and information will be provided to specific individuals on a "need to know" basis. This procedure allows work to be accomplished in the Turbine Building and Control Building adjacent to Door #51.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4134.1 PART LENGTH ROD CABINET REMOVAL

The purpose of this procedure is to control the removal of the part length control rod cabinet and transformer, in preparation for the installation of an Appendix R instrumentation cabinet. This procedure will allow work to be accomplished in the Intermediate Building Basement.

SM-4134.2 APPENDIX R INSTRUMENT INSTALLATION OUTSIDE CONTAINMENT

The purpose of this procedure is to control the installation of the cabinets, conduit, cable, transmitters, and supports necessary for this EWR outside containment. No terminations or tie-ins of new equipment are to be completed under this procedure. This procedure will allow work to be accomplished in the Intermediate Building Basement - clean side, Auxiliary Building - all levels and Charging Pump Room.

SM-4134.3 APPENDIX R INSTRUMENT INSTALLATION INSIDE CONTAINMENT

The purpose of this procedure is to control the installation of the conduit, cable, transmitters, and supports necessary for this EWR inside containment. No terminations or tie-ins of new equipment are to be completed under this procedure. This procedure will allow work to be accomplished in Containment - Intermediate level.

SM-4134.4 APPENDIX R INSTRUMENTATION - TUBING INSTALLATION

The purpose of this procedure is to control the installation, testing and turnover of the tubing portion of EWR-4134. This procedure will allow work to be accomplished in the Intermediate Building Basement and Containment.

SM-4134.5 APPENDIX R INSTRUMENTATION - FINAL TERMINATIONS AND TESTING

The purpose of this procedure is to control the installation, testing and turnover of the final electrical terminations for the Appendix R transmitters and indicator cabinets. This procedure will allow work to be accomplished in Containment, Intermediate Building, Auxiliary Building and Charging Pump Room.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

[illegible]

[illegible]

[illegible]

[illegible]

SM-4135.1 CONDUIT AND CABLE INSTALLATION FOR TDAFP DC LUBE OIL PUMP LOCAL CONTROL

The purpose of this procedure is to control the installation and turnover of the conduit and cable portion of this Appendix R modification. The existing control circuits (E 193 and E 194) are not to be determinated, nor are any other circuit terminations to be made under this SM procedure. This procedure will allow work to be accomplished in the Intermediate Building Basement. The general purpose of this modification is to provide local control for the turbine driven auxiliary feedwater pump DC lube oil pump following a fire in the control complex.

SM-4135.2 TDAFP DC LUBE OIL PUMP LOCAL CONTROL TERMINATIONS AND TEST

The purpose of this procedure is to control the installation, testing and turnover of the local control switch and terminations for the Turbine Driven Auxiliary Feedpump DC oil pump. This procedure will allow work to be accomplished in the Intermediate Building Basement - clean side.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4136.1 1A EMERGENCY DIESEL GENERATOR LOCAL BREAKER STATUS LIGHTS

The purpose of this procedure is to control the installation of cable and splice boxes for breaker indication to the new local "A" diesel generator control panel. This procedure will allow work to be accomplished in the "A" Diesel Generator Vault, "B" Diesel Generator Vault and Relay Room.

SM-4136.2 1A DIESEL GENERATOR LOCAL CONTROL PANEL INSTALLATION

The purpose of this procedure is to control the installation of the new local control panel and sound proof enclosure for the 1A diesel generator. Included under this procedure is the removal of the south flood wall and associated steps. This procedure will allow work to be accomplished in the 1A Diesel Generator Room.

SM-4136.3 1A EMERGENCY DIESEL GENERATOR WIRING

The purpose of this procedure is to control equipment removal and the installation of wiring necessary to support "A" Diesel Generator Emergency Local Control Panel. This procedure will allow work to be accomplished in the (1A) Diesel Generator Room, Bus 14 and Bus 18. The general purpose of this modification is to isolate all DG/"A" control wiring outside the "A" DG Room during an Appendix R event.

SM-4136.4 TESTING OF THE "A" DIESEL GENERATOR EMERGENCY LOCAL CONTROL PANEL

The purpose of this procedure is to control the testing of the "A" Diesel Generator Emergency Local Control Panel.

SM-4136.5 RUN-TESTING OF THE "A" DIESEL GENERATOR FROM THE EMERGENCY LOCAL CONTROL PANEL

The purpose of this procedure is to control the testing and turnover of "A" Diesel Generator Emergency Local Control Panel. The diesel generator will be run-tested from both the MCB and ELCP. This procedure will allow work to be accomplished in the Control Room, 1A Diesel Generator Room, Bus 14 and Bus 18. The general purpose of this modification is to allow emergency operation of the 1A Diesel Generator from the diesel room in the event of a fire in the control/relay room.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

[illegible]

[illegible]

[illegible]

SM-4137.1 APPENDIX R SOURCE RANGE DRAWER OPERABILITY TEST

The purpose of this procedure is to control the operability testing, and turnover of the Appendix R Source Range Drawer. This procedure will allow testing to be accomplished in the Intermediate Building Basement.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4138.1 CHARGING PUMP 1A ALTERNATE DC FEED

The purpose of this procedure is to control the installation of cable and a transfer switch for an alternate DC feed for charging pump 1A. No terminations to existing equipment are to be performed. This procedure will allow work to be accomplished in the Auxiliary Building.

SM-4138.2 CHARGING PUMP 1A ALTERNATE DC FEED TERMINATIONS AND TESTING

The purpose of this procedure is to control the installation, testing and turnover of the terminations for the Appendix R alternate DC feed to charging pump 1A. This procedure will allow work to be accomplished in the Auxiliary Building.

SM-4138.3 CHARGING PUMP 1A ALTERNATE DC FEED REWORK

The purpose of this procedure is to control the rework, testing, and turnover of the terminations for the Appendix R alternate DC feed to charging pump 1A, per RG&E NRC 86-208. This procedure will allow work to be accomplished in the Auxiliary Building.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4139.1 APPENDIX R - AUXILIARY BUILDING SPRINKLER PIPING INSTALLATION

The purpose of this procedure is to control the installation, testing, and turnover of the piping portion of the Auxiliary Building Appendix R sprinkler system upgrade. This procedure will allow work to be accomplished in the Auxiliary Building - operating and mezzanine floors. The general purpose of this modification is to provide additional sprinkler systems in the Auxiliary Building.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4139A.1 APPENDIX R - AUXILIARY BUILDING SPRINKLER ELECTRICAL INSTALLATION

The purpose of this procedure is to control the installation of conduit, cable, and conduit supports for the Auxiliary Building Appendix R sprinkler system. No terminations to the existing fire system are to be completed. This procedure will allow work to be accomplished in the Auxiliary Building - operating and intermediate floor.

SM-4139A.2 APPENDIX R SPRINKLER MODIFICATION - SSA, SSC AND FCP WIRING

The purpose of this procedure is to control the required changes to Satellite Station A, Satellite Station C and the Fire Control Panel for EWR-4139A. This procedure will allow work to be accomplished in the Relay Room and Control Room.

SM-4139A.3 ACCEPTANCE TEST PROCEDURE FOR FUNCTIONALLY TESTING VALVE TAMPER SWITCHES V9187(S36), V9189(S36), AND V9195(S35)

The purpose of this procedure is to control the installation, testing and turnover of valve tamper switches V9187(S36), V9189(S36) and V9195(S35). This procedure will allow work to be accomplished in the Control Room, Relay Room and Auxiliary Building Operating Level.

SM-4139A.4 ALARM VALVE TESTING - SUPPRESSION SYSTEM #S35 AUXILIARY VUILDING 271'-0" EAST STAIRWELL, SPRINKLER SYSTEM

The purpose of this procedure is to control the testing, and turnover of suppression system #35. This procedure will allow work to be accomplished in the Auxiliary Building 271'-0", Control Room and Relay Room.

SM-4139A.5 ALARM VALVE TESTING - SUPPRESSION SYSTEM #S36 AUXILIARY BUILDING 271'-0" WEST STAIRWELL AND EQUIPMENT HATCH SPRINKLER SYSTEM

The purpose of this procedure is to control the testing, and turnover of suppression system #36. This procedure will allow work to be accomplished in the Auxiliary Building 271'-0", Control Room and Relay Room:

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4175.1 BATTERY ROOM 1B STRUCTURAL STEEL FIRE PROTECTION

The purpose of this procedure is to control the installation and turnover of the application of ALBI-CLAD fire proofing to the structural steel in the "1B" Battery Room.

SM-4175.2 BATTERY ROOM 1A STRUCTURAL STEEL FIRE PROTECTION

The purpose of this procedure is to control the installation and turnover of the application of ALBI-CLAD fire proofing to the structural steel in the "1A" Battery Room.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4176.1 INTERMEDIATE BUILDING SUB-BASEMENT FIRE DETECTION UPGRADE

The purpose of this procedure is to control the installation of conduit, cable, detector bases, and sensitivity panels in the sub-basement of the Intermediate Building. This procedure will allow work to be accomplished in the Intermediate Building Basement - clean side and Intermediate Building Sub-basement. The general purpose of this modification is to provide fire detection in the Intermediate Building sub-basement per Appendix R requirements.

SM-4176.2 INTERMEDIATE BUILDING SUB-BASEMENT FIRE DETECTION UPGRADE

The purpose of this procedure is to control the installation of conduit, cable, detector bases and sensitivity panels in all levels of the Intermediate Building, excluding the sub-basement. No new terminations to the existing fire detection system are to be completed at this time, terminations may be completed to the detector bases, sensitivity test panels, and alarm bells.

SM-4176.3 SENSITIVITY TESTING OF GAMEWELL MODEL R7 DETECTOR FOR FIRE DETECTOR ZONES Z36D, Z37D1, Z37D3, Z38D1, Z38D3

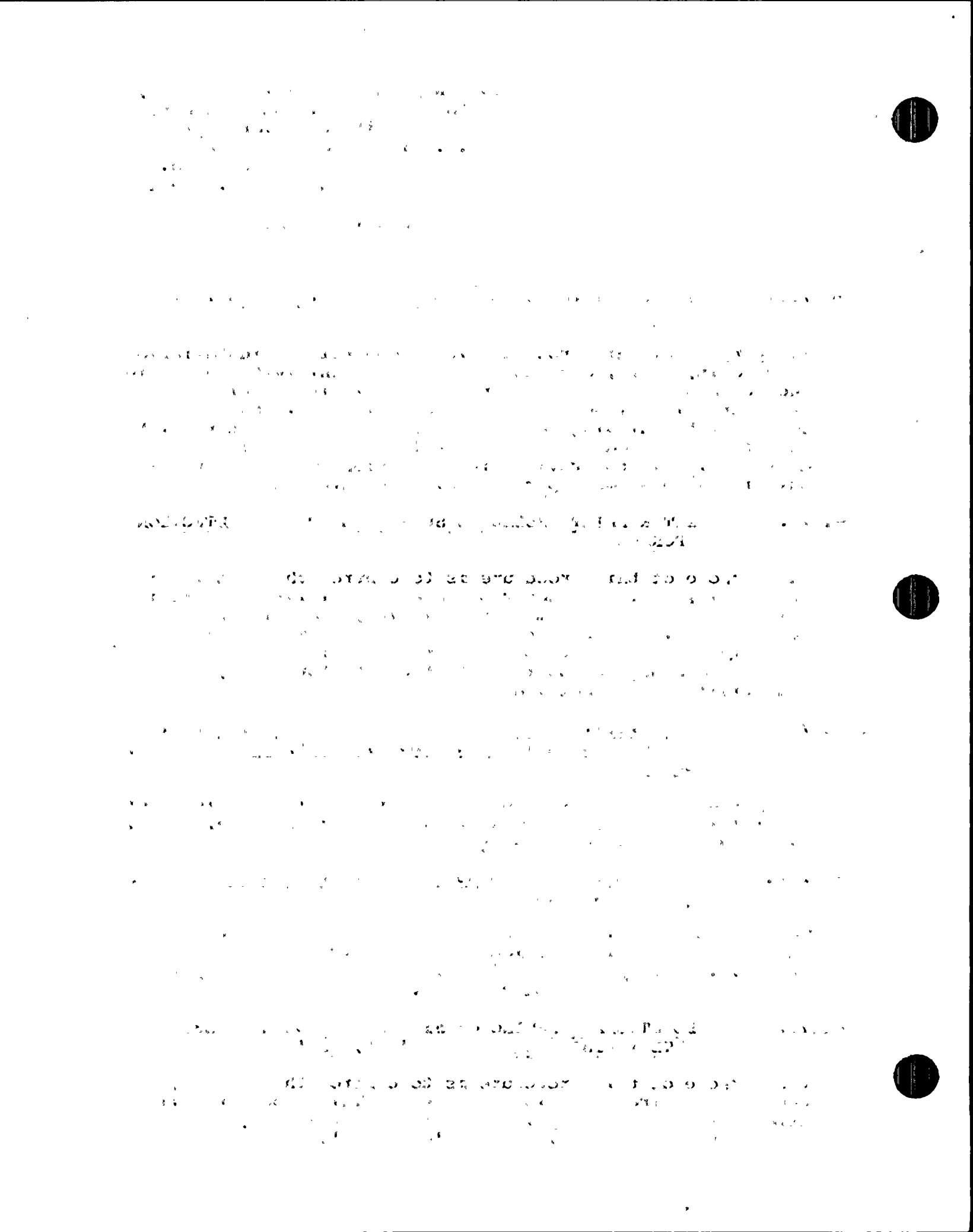
The purpose of this procedure is to provide instructions for sensitivity testing of the Z36D, Z37D1, Z37D2, Z37D3, Z38D1, Z38D2 and Z38D3 fire detectors.

SM-4176.4 INTERMEDIATE BUILDING FIRE DETECTION UPGRADE - SSA AND FCP WIRING

The purpose of this procedure is to control the required changes to Satellite Station A and the Fire Control Panel for EWR-4176. This procedure will allow work to be accomplished in the Relay Room and Control Room.

SM-4176.5 FUNCTIONAL TESTING OF FIRE DETECTION ZONE Z36 INTERMEDIATE BUILDING 236'-6", 238'

The purpose of this procedure is to control the testing, and turnover of fire detection zone Z-36. This procedure will allow work to be accomplished in the Control Room, Relay Room and Intermediate Building EL 236'-6", 238'.



SM-4176.6 FUNCTIONAL TESTING OF THE INTERMEDIATE BUILDING NORTH FIRE DETECTION ZONES Z37D1(278'-4"), Z37D2(298'-4"), Z37D3(315'-4")

The purpose of this procedure is to control the testing, and turnover of fire detection zones Z37D1, Z32D2, and Z37D3. This procedure will allow work to be accomplished in the Control Room, Relay Room and Intermediate Building all elevations (except sub basement).

SM-4176.7 FUNCTIONAL TESTING OF THE INTERMEDIATE BUILDING SOUTH FIRE DETECTION ZONES Z38D1(253'-6"), Z38D2(271'), Z38D3(293')

The purpose of this procedure is to control the testing, and turnover of fire detection zones Z38D1, Z38D2, and Z38D3. This procedure will allow work to be accomplished in the Control Room, Relay Room and Intermediate Building all elevations (except sub basement).

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4227.1 REACTOR HEAD VENT VALVE CONNECTORS/CABLE

The purpose of this procedure is to control the installation, testing and turnover of cable and connectors for Reactor Head Vent Valves. This procedure will allow work to be accomplished in Containment.

SM-4227.2 REACTOR HEAD VENT VALVE CABLE SPLICING

The purpose of this procedure is to control the installation, testing and turnover of cable splices for Reactor Head Vent Valves. This procedure will allow work to be accomplished in Containment.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

SM-4228.1 PT-420 POWER SOURCE

The purpose of this procedure is to control the installation, testing and turnover of PT-420 Power Source Upgrade. This procedure will allow work to be accomplished in the Control Building. The general purpose of this modification is to upgrade power source for PT-420 to a Category I power source.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4277.1 CONTAINMENT TEMPERATURE AND DEWPOINT INSTRUMENTATION

The purpose of this procedure is to control the installation, testing and turnover of replacement instrumentation for containment atmosphere temperature and dewpoint sensor. This procedure will allow work to be accomplished in the Intermediate Building.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-4287.1 MODIFICATION OF SUPPORT AFU-87 ON ANALYSIS LINE AFW-200 FOR THE TURBINE DRIVEN AUXILIARY FEEDWATER PUMP

The purpose of this procedure is to control the installation and turnover of modification of support AFU-87 on analysis line AFW-200 for the Turbine Driven Auxiliary Feedwater Pump. This procedure will allow work to be accomplished in the Intermediate Building - basement, clean side.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-1596.2 REMOVAL OF EXISTING PIPING AND EQUIPMENT ASSOCIATED WITH THE CONTROL ROOM, BATTERY ROOM AND RELAY ROOM STEAM HEATING SYSTEM

The purpose of this procedure is to provide the guidance necessary to remove all the existing piping and components associated with the Control Room, Relay Room, and Battery Room Steam Heating System. The steam supply line and condensate return line will be capped off prior to piping and component removal. The general purpose of this modification is to prevent, in the event of a high energy steam break in either the Control Room or the Relay Room from causing severe damage to either the electrical or mechanical equipment in the areas.

SM-1596.4 FUNCTIONAL TEST OF 40KW ELECTRIC HEATING COIL

The purpose of this procedure is to provide the guidance necessary to functionally test the Control Room H.V.A.C. system's newly installed 40KW Electric Heating Coil. The general purpose of this modification is to prevent, in the event of a high energy steam break in either the Control Room or the Relay Room, severe damage to either electrical or mechanical equipment in the areas.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-79-1832B.76 MODIFICATION OF SATELLITE STATION "A" (SSA) TO ALLOW LAMP TESTING

The purpose of this procedure is to divide "VS" power to the zone modules between the 2.5 amp MF3 circuit breaker, the 2.5 amp MF1 fuse, (both on the SSA, EE board), and a new PXU (auxiliary power unit).

SM-79-1832B.87 INSTALLATION AND TESTING OF LAMP TEST MODIFICATION

The purpose of this procedure is to provide instructions for the installation and testing of the extender lamp test modules and wiring within Satellite Station "A" and "C" in order to lamp test the system, and to remove a potential tie between the positive supply voltages of SSA and SSC.

SM-1832B.93 TEST PROCEDURE SSA BATTERY BACKUP

The purpose of this procedure is to provide instructions for making the SSA Battery Backup operational, and for performing functional testing of SSA to demonstrate that the battery backup modification is acceptable. To provide instructions for returning SSA to service without battery backup to allow time for review and approval of test results.

SM-1832B.94 ACCEPTANCE TEST FOR SSC BATTERY BACKUP

The purpose of this procedure is to provide instructions for making the SSC Battery Backup operational, and for performing functional testing of SSC to demonstrate that the battery backup modification is acceptable. To provide instructions for returning SSC to service without battery backup to allow time for review and approval of test results.

SM-1832B.95 CONDUIT AND WIRE INSTALLATION FOR FIRE DETECTION SYSTEM Z-35

The purpose of this procedure is to install conduit and wire which will comprise Fire Detection System Z-35 (Spent Fuel Pit).

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-80-1833.24 FIRE SUPPRESSION SYSTEM UPGRADE MODIFICATION

The purpose of this procedure is to provide the instructions necessary to mechanically convert the Intermediate and Auxiliary Building Cable Tray Deluge systems to automatic pre-action water spray systems.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-2512.3 SEISMIC UPGRADE OF PIPE SUPPORTS FOR LINE NOS: MS-200, SI-110, CC-450, FW-200, MS-100, SW-100, CC-400, CC-525, CC-600, FW-100, CC-550, RC-300, RHR-2500, SGB-200 AND SI-210

The purpose of these procedures is to provide the instructions necessary to install the Seismic Upgrade Modification of the pipe supports for the lines listed above.

SM-2512.6 SEISMIC UPGRADE OF PIPE SUPPORTS FOR RHR-350 AND RHR-400

The purpose of this procedure is to provide the instructions necessary to perform the Seismic Upgrade of Pipe Supports for Lines RHR-350 and RHR-400.

SM-2512.9 SEISMIC UPGRADE OF PIPE SUPPORTS ON LINE SW-1020: SERVICE WATER SUPPLY TO SPENT FUEL PIT HEAT EXCHANGER

The purpose of this procedures is to provide the instructions necessary to perform the Seismic Upgrade of Pipe Supports on Line SW-1020, Service Water Supply to Spent Fuel Pit Heat Exchanger.

SM-2512.10 SEISMIC UPGRADE OF PIPE SUPPORTS ON LINE SW-1100: SERVICE WATER RETURN FROM COMPONENT COOLING HEAT EXCHANGER

The purpose of this procedure is to provide the instructions necessary to perform the Seismic Upgrade of Pipe Supports on Line SW-1100 - Service Water Return from Spent Fuel Pit Heat Exchanger.

SM-2512.11 SEISMIC UPGRADE OF PIPE SUPPORTS ON LINE SW-1120 SERVICE WATER RETURN FROM SPENT FUEL PIT HEAT EXCHANGER

The purpose of this procedure is to provide the instructions necessary to perform the Seismic Upgrade of Pipe Supports on Line SW-1120, Service Water Return from the Spent Fuel Pit Heat Exchanger.

SM-2512.12 SEISMIC UPGRADE OF PIPE SUPPORTS ON LINE SW-1000, SERVICE WATER SUPPLY TO COMPONENT COOLING HEAT EXCHANGERS A & B

The purpose of this procedure is to provide the instructions necessary to perform the Seismic Upgrade of Pipe Supports on Line SW-1000, Service Water Supply to Component Cooling Heat Exchangers A & B.

SM-2512.13 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE RHR-450 SUCTION PIPING TO SAFETY INJECTION & CONTAINMENT SPRAY PUMPS

The purpose of this procedure is to provide the instructions necessary to perform the Seismic Upgrade of Line RHR-450, Suction Piping to Safety Injection Pumps & Containment Spray Pumps.

SM-2512.14 SEISMIC UPGRADE OF PIPE SUPPORTS LOCATED ON LINE RHR-300 SUCTION PIPING TO REACTOR COOLANT DRAIN TANK PUMPS AND RESIDUAL HEAT PUMPS

The purpose of this procedure is to provide the instructions necessary to perform the Seismic Upgrade of Pipe Supports on Line RHR-300, Suction Line to Reactor Coolant Drain Tank Pumps and Residual Heat Pumps.

SM-2512.15 SEISMIC UPGRADE OF PIPE SUPPORTS LOCATED ALONG ANALYSIS LINE CC-180: COMPONENT COOLING WATER FROM THE RESIDUAL HEAT REMOVAL PUMPS

The purpose of this procedure is to provide guidance to the work associated with the Seismic Upgrade of Pipe Supports located along Line CC-180, Component Cooling Water from the Residual Heat Removal Pumps.

SM-2512.17 SEISMIC UPGRADE OF PIPE SUPPORTS LOCATED ALONG ANALYSIS LINE CC-120 AND CC-140: COMPONENT COOLING WATER TO RESIDUAL HEAT REMOVAL PUMPS A & B

The purpose of this procedure is to provide guidance to the work associated with the Seismic Upgrade of Pipe Supports located along Line CC-120 and CC-140, Component Cooling Water to Residual Heat Removal Pumps A & B.

SM-2512.19 SEISMIC UPGRADE OF PIPE SUPPORTS LOCATED ALONG ANALYSIS LINES CC-250 AND CC-260

The purpose of this procedures is to provide guidance in the performance of the work associated with the Seismic Upgrade of Pipe Supports on the piping to and from the Containment Spray Pumps (analysis lines CC-250 and CC-260).

SM-2512.20 SEISMIC UPGRADE OF PIPE SUPPORTS ALONG ANALYSIS LINE CC-200

The purpose of this procedure is to provide guidance to the performance of the work associated with the Seismic Upgrade of Auxiliary Cooling Water Piping from the Component Cooling Heat Exchangers to Residual Heat Exchangers and penetration 131, (analysis line CC-200).

SM-2512.21 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CS-500, DISCHARGE PIPING FROM CONTAINMENT SPRAY PUMP 1A TO PENETRATION 105

The purpose of this procedure is to provide guidance to the performance of the work associated with the Seismic Upgrade of Pipe Supports on Analysis Line CS-500, Discharge Piping from Containment Spray Pump No. 1A to Penetration 105.

SM-2512.24 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CC-300, AUXILIARY COOLING WATER FROM RHR HEAT EXCHANGERS TO COMPONENT COOLING PUMP SUCTION

The purpose of this procedure is to provide guidance to the performance of work associated with the Upgrade of Seismic Supports located along Analysis Line CC-300, Auxiliary Cooling Water from RHR Heat Exchanger to Component Cooling Pump Suction.

SM-2512.25 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CC-170, AUXILIARY COOLING WATER FROM RHR PUMP "A"

The purpose of this procedure is to provide guidance to the performance of the work associated with the Seismic Upgrade of Pipe Supports on Analysis Line CC-170, Auxiliary Cooling Water from RHR Pump "A".

SM-2512.27 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CC-320, AUXILIARY COOLING WATER OUTLET HEADER FOR SAFETY INJECTION PUMPS

The purpose of this procedure is to provide guidance to the performance of the work associated with the Seismic Upgrade of Analysis Line CC-320, Auxiliary Cooling Water Outlet Header for Safety Injection Pumps.

SM-2512.28 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CS-520, CONTAINMENT SPRAY FROM THE EDUCTORS TO DISCHARGE AND SUCTIONS OF THE CONTAINMENT SPRAY PUMPS

The purpose of this procedure is to provide guidance to the performance of the work associated with the Upgrade of Pipe Supports on Analysis Line CS-520, Containment Spray from the eductors to discharge and suction of the Containment Spray Pumps.

SM-2512.29 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CS-510, CONTAINMENT SPRAY AT THE EDUCTORS

The purpose of this procedure is to provide guidance to the performance of the work associated with the seismic upgrade of Analysis Line CS-510, Containment Spray at the eductors.

SM-2512.32 SEISMIC UPGRADE OF PIPE SUPPORTS ALONG ANALYSIS LINE CC-330 AUXILIARY COOLING WATER TO PENETRATIONS 124, 127, AND 128 (CC TO EXCESS LETDOWN HX, A-RCP, & B-RCP RESPECTIVELY)

The purpose of this procedure is to provide guidance to the performance of the work associated with the Seismic Upgrade of Pipe Supports along Analysis Line CC-330.

SM-2512.33 SEISMIC UPGRADE OF PIPE SUPPORTS ALONG ANALYSIS LINE CC-220 AUXILIARY COOLING WATER FROM PENETRATIONS 124, 125, 126 AND 130 TO HEADER (CC-300)

The purpose of this procedure is to provide guidance to the work associated with the Seismic Upgrade of Pipe Supports located along Analysis Line CC-220.

SM-2512.34 SEISMIC UPGRADE OF PIPE SUPPORTS ALONG ANALYSIS LINE CC-240 AUXILIARY COOLING WATER TO RHR PUMP "B" AND TO CC-120 FROM 1G SUPPLY HEADER GOING TO THE RHR HX'S (CC-200)

The purpose of this procedure is to provide guidance to the work associated with the Seismic Upgrade of Pipe Supports located along Analysis Line CC-240

SM-2512.39 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE SI-300 SAFETY INJECTIN DISCHARGE FROM PUMPS 1, 2 AND 3 TO PENETRATIONS 101 AND 113

The purpose of this procedure is to provide guidance to the work associated with the seismic upgrade of pipe supports along Analysis Line SI-300.

SM-2512.40 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CC-350 AUXILIARY COOLING RETURN FROM THE SAMPLE COOLERS

The purpose of this procedure is to provide guidance to the work associated with the seismic upgrade of pipe supports along Analysis Line CC-350.

SM-2512.41 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CC-340 AUXILIARY COOLING WATER TO THE SAMPLE COOLERS

The purpose of this procedure is to provide guidance to the work associated with the seismic upgrade of pipe supports along Analysis Line CC-340.

SM-2512.42 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE SW-1520 SERVICE WATER TO MOTOR DRIVEN AUXILIARY FEEDWATER PUMPS 1A AND 1B

The purpose of this procedure is to provide guidance to the work associated with the seismic upgrade of pipe supports along Analysis Line SW-1520.

SM-2512.43 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CVC-900 CHEMICAL VOLUME CONTROL SYSTEM FROM PENETRATION 112 TO THE NON-REGENERATIVE HEAT EXCHANGER

The purpose of this procedure is to provide guidance to work associated with Seismic Upgrade of Pipe Supports along Analysis Line CVC-900.

SM-2512.44 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CVC-1100 CHEMICAL VOLUME CONTROL SYSTEM FROM CHARGING PUMP FILTER TO SEAL WATER FILTERS AND PENETRATIONS 102, 106, AND 110

The purpose of this procedure is to provide guidance to the work associated with the Seismic Upgrade of Pipe Supports along Analysis Line CVC-1100.

SM-2512.45 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CVC-800 CHEMICAL VOLUME CONTROL SYSTEM FROM CHARGING PUMP DISCHARGE FILTER TO PENETRATION 100

The purpose of this procedure is to provide guidance to the work associated with the Seismic Upgrade of Pipe Supports along Analysis Line CVC-800.

SM-2512.46 SEISMIC UPGRADE OF PIPE SUPPORT ON ANALYSIS LINE SW-1850 SERVICE WATER SUPPLY TO "A" AND "B" DIESEL GENERATOR LUBE OIL COOLERS

The purpose of this procedure is to provide guidance to the work associated with the seismic upgrade of pipe supports along Analysis Line SW-1850.

SM-2512.66 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE CVC-730 CVCS FROM REACTOR COOLANT "LOOP B" COLD LEG TO REGENERATIVE HEAT EXCHANGER, CVC-700 AND FLOOR DRAIN

The purpose of this procedure is to provide instructions necessary to install the seismic upgrade modifications of pipe supports on Analysis Line CVC-730.

SM-2512.67 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE MS-300 MODIFICATIONS FOR TRUNION INSTALLATIONS ON MAIN STEAM LINE (LOOP A & B) OUTSIDE CV TO THE HEADER

The purpose of this procedure is to provide instructions necessary to install welded trunion on the Main Steam Line (MS-300).

SM-2512.68 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINES FW-300 AND FW-301 WELDED ATTACHMENTS TO MAIN FEEDWATER PIPING (LOOP A & B) OUTSIDE CV

The purpose of this procedure is to provide instructions necessary to install welded attachments on the Main Feedwater Lines (FW-300 and FW-301).

SM-2512.69 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE MS-300; SUPPORTS MSU-27, MSU-39 AND MSU-43 ON MAIN STEAM HEADERS

The purpose of this procedure is to provde instructions for installation of specified items for pipe supports MSU-27, MSU-39 and MSU-43. This procedure will allow work to be accomplished in the Turbine Building Operating Floor, south wall above elevator (MSU-39), Intermediate Building - clean side at Elevation 311' on A Main Steam Header (MSU-43), Facade area at Elevation 311' on B Main Steam Header (MSU-27) and Intermediate Building - clean area, on A Main Steam Header near Radiation Monitor (MSU-39).

SM-2512.70 SEISMIC UPGRADE OF SIX NEW PIPE SUPPORTS ON ANALYSIS LINE FW-300; MAIN FW FROM FW REG. VALVES TO B STEAM GENERATOR

The purpose of this procedure is to provide instructions for installation of specified items for pipe supports on Analysis Line FW-300. This procedure will allow work to be accomplished in the Turbine Building Operating Floor - south wall above FW Reg. Valves, Intermediate Building - clean side at Elevation 286' on B Feedwater Header and Intermediate Building - clean area on B Feedwater Header above CV Feedwater Isolation Valve.

SM-2512.71 SEISMIC UPGRADE OF FOUR NEW PIPE SUPPORTS ON ANALYSIS LINE FW-301; MAIN FW FROM FW REG. VALVES TO A STEAM GENERATOR

The purpose of this procedure is to provide instructions for installation of specified items for pipe supports on Analysis Line FW-301. This procedure will allow work to be accomplished in the Turbine Building Operating Floor south wall above FW Reg. Valves and Intermediate Building clean side at Elevation 286' on A Feedwater Header (FWU-15).

SM-2512.72 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE AFW-300; COND. SUPPLY TO TURBINE DRIVEN AFW PUMP

The purpose of this procedure is to provide instructions for installation of specified items for pipe supports on Analysis Line AFW-300. This procedure will allow work to be accomplished in the Intermediate Building clean side sub-basement below Turbine Driven AFW Pump and Intermediate Building clean area south of Turbine Driven AFW pump.

SM-2512.73 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE MS-120 MAIN STEAM FROM MAIN STEAM HEADER TO TURBINE-DRIVEN AUXILIARY FEEDWATER PUMP

The purpose of this procedure is to provide instruction for installation of pipe supports on Analysis Line MS-120 except for complete installation of MSU-63, 73, 83. This procedure will allow work to be accomplished in the Intermediate Building near Main Steam Header MSU-73, 74, 75, 83, 84, 85, Intermediate Building at elevation 270' MSU-64 to MSU-72, MSU-76 to MSU-82 and Intermediate Building near Turbine-Driven Auxiliary Feedwater Pump MSU-62, 63.

SM-2512.74 SEISMIC UPGRADE OF NINE PIPE SUPPORTS ON ANALYSIS LINE MS-300 MAIN STEAM LINE (LOOPS A AND B) OUTSIDE CV

The purpose of this procedure is to provide instructions for installation and/or upgrade of nine pipe supports on Analysis Line MS-300. This procedure will allow work to be accomplished in the Facade area near the Transformer Yard, Main Steam from B Steam Generator at Elevation 313' : MSU-11, 12, 13, 14, 15, 16, 18, 19, 21, 22, 24, 25.

SM-2512.75 SEISMIC UPGRADE OF THREE NEW PIPE SUPPORTS ON ANALYSIS LINE FW-300; MAIN FW FROM FW REG. VALVES TO B STEAM GENERATOR

The purpose of this procedure is provide instructions for installation of three pipe supports on Analysis Line FW-300. This procedure will allow work to be accomplished in the Facade area near the Transformer Yard, FW to B Steam Generator at Elevation 305' : FWU-54, FWU-57 and FWU-59.

SM-2512.77 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINES SW-1410 AND SW-1550; SERVICE WATER RETURN FROM RX COMPT. COOLERS AND A/C CHILLERS IN CLEAN INTERMEDIATE BUILDING, AND SERVICE WATER SUPPLY TO RX COMPT. COOLERS IN AUXILIARY BUILDING.

The purpose of this procedure is to provide instruction for upgrade of pipe supports on Analysis Lines SW-1410 and SW-1550. This procedure will allow work to be accomplished in the Clean Intermediate Building Basement near Service Water Piping.

SM-2512.78 SEISMIC UPGRADE OF BDU-28 ON ANALYSIS LINE SGB-300 S/G BLOWDOWN IN INTERMEDIATE BUILDING

The purpose of this procedure is to provide instruction for installation of pipe support BDU-28 on Analysis Line SGB-300. This procedure will allow work to be accomplished in the Intermediate Building basement near S/G Blowdown Valve 5738.

SM-2512.79 MODIFICATIONS TO RHU-40 AND RHU-46 ON ANALYSIS LINES RHR-350 AND RHR-400

The purpose of this procedure is to provide instruction for modification of two pipe supports on Analysis Lines RHR-350 and RHR-400. This procedure will allow work to be accomplished in the Auxiliary Building basement and RHR Pump Room just west of RHR Heat Exchangers.

SM-2512.80 MODIFICATIONS TO SIU-16 AND SIU-17 ON ANALYSIS LINE SI-110

The purpose of this procedure is to provide instruction for modification of two pipe supports on Analysis Line SI-110. This procedure will allow work to be accomplished in the Containment basement, outside entrance to B Loop Area.

SM-2512.81 MODIFICATION TO RHU-86 ON ANALYSIS LINE RHR-300

The purpose of this procedure is to provide instruction for modification of one pipe support on Analysis Line RHR-300. This procedure will allow work to be accomplished in the RHR Pump Room near MOV 1813B.

SM-2512.82 SEISMIC UPGRADE OF FIFTEEN PIPE SUPPORTS ON ANALYSIS LINE FW-300 MAIN FW FROM REG. VALVES TO B STEAM GENERATOR

The purpose of this procedure is to provide instruction for upgrade of fifteen pipe supports on Analysis Line FW-300. This procedure will allow work to be accomplished in he Facade Area near the Transformer Yard, FW to B Steam Generator at Elevation 305' : FWU-46, 47, 48, 49, 50, 51, 52, 53, 55, 56, Turbine Building near FW Reg. Valves : FWU-31 and Intermediate Building near Main Steam Header : FWU-35, 37, 38, 42.

SM-2512.83 RELOCATION OF CONDUIT FOR MOV-4000B

The purpose of this procedure is to provide direction for relocation of conduit to valve MOV-4000B. This procedure will allow work to be accomplished in the Intermediate Building Basement above Door 37.

SM-2512.84 SEISMIC UPGRADE OF MSU-60 ON ANALYSIS LINE MS-300; MAIN STEAM FROM STEAM GENERATORS, OUTSIDE CONTAINMENT

The purpose of this procedure is to provide instruction for upgrade of pipe support MSU-60 on Analysis Line MS-300. This procedure will allow work to be accomplished in the Intermediate Building near Atmospheric Steam Dump Valve 3507.

SM-2512.85 SEISMIC UPGRADE OF PIPE SUPPORTS - WELD ATTACHMENTS - ON ANALYSIS LINE MS-120, MAIN STEAM FROM MAIN STEAM HEADER TO TURBINE-DRIVEN AUXILIARY FEEDWATER PUMP

The purpose of this procedure is to provide instruction to weld attachments installed as per disposition on Analysis Line MS-120 and perform a hydrostatic test on MS-120. This procedure will allow work to be accomplished in the Intermediate Building near Main Steam Header - MSU-73, 83 and Intermediate Building near Turbine-Driven Auxiliary Feedwater Pump - MSU-63.

SM-2512.86 SEISMIC UPGRADE; CORRECTION OF MISCELLANEOUS PUNCHLIST ITEMS ON CVCS ANALYSIS LINES

The purpose of this procedure is to provide instruction for correction of punchlist item in the Charging Pump Room and N_aOH Tank Room. This procedure will allow work to be accomplished in the Auxiliary Building in the charging pump room and N_aOH tank areas.

SM-2512.87 SEISMIC SUPPORT UPGRADE - CCV-24, CVU-160 ANALYSIS LINE CC-550 AND ANALYSIS LINE CVC-210

The purpose of this procedure is to provide instructions to modify existing seismic supports CCU-24, cooling water to Rx support and CVU-160, "A" RCP Seal leak off. This procedure will allow work to be accomplished in the CCU-24 CV basement loop area ceiling and CVU-160 CV Intermediate level.

SM-2512.88 MODIFICATIONS TO CCU-164 ON ANALYSIS LINE CC-300

The purpose of this procedure is to provide instruction for modification of one pipe support on Analysis Line CC-300. This procedure will allow work to be accomplished in the Auxiliary Building Intermediate Floor east of RHR Heat Exchanger Room (CCW from BA Evap.).

SM-2512.89 MODIFICATIONS TO CVU-65, CVU-73, CVU-103, CVU-104, CCU-57 AND CCU-71

The purpose of this procedure is to provide instructions for modification of pipe supports CVU-65 and CVU-73 on Analysis Line CVC-700; CVU-103 and CVU-104 on Analysis Line CVC-500; CCU-57 on Analysis Line CC-700; and CCU-71 on Analysis Line CC-600. This procedure will allow work to be accomplished in Containment next to A RCP Upper Bearing Cooler (CCU-57, CCU-71), Containment on Aux. Spray Line to PZR (CVU-65, CVU-73) and Containment by B RCP upper platform (CVU-103, CVU-104).

SM-2512.90 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE MS-300, SEVEN MAIN STEAM SUPPORTS ON THE MAIN STEAM HEADER, IN CLEAN INTERMEDIATE BUILDING

The purpose of this procedure is to provide instruction for seismic upgrade of pipe supports on Analysis Line MS-300. This procedure will allow work to be accomplished in the Main Steam Header, Intermediate Building clean side.

SM-2512.91 SEISMIC UPGRADE OF PIPE SUPPORTS MSU-39 AND MSU-29 ON "A" MAIN STEAM HEADER, ANALYSIS LINE MS-300

The purpose of this procedure is to complete the installation of MSU-39 and to install pipe support MSU-29 on "A" Main Steam Header. This procedure will allow work to be accomplished in the Intermediate Building clean side east stairway at Elevation 310' (MSU-29) and Intermediate Building clean side west at Elevation 305' (MSU-39).

SM-2512.92 SEISMIC UPGRADE OF CONTAINMENT PENETRATIONS P-111 AND P-140 (RHR)

The purpose of this procedure is to modify the RHR System Containment Penetrations: To install an additional plate onto P-111 (RHR to "B" cold leg) and P-140 (RHR pump suction from "A" hot leg) inside containment. This procedure will allow work to be accomplished in Containment basement near east stairway.

SM-2512.93 SEISMIC UPGRADE - RELOCATION OF CIRCUITS E35 AND R1279A

The purpose of this procedure is to relocate circuits E35 (from Turb. Dr. Aux. F.W. pump Steam Admission Valve 1A to Motor Starter for Turb. D. Aux. F.W. pump Steam Admission Valve 1A) and R1279A (from F.W. Rack to Valve Poistioner for PCV-468, "A" S/G Atmospheric Steam Dump Valve). This procedure will allow work to be accomplished in the Intermediate Building clean side and Relay Room.

SM-2512.94 REPAIR OF PIPE SUPPORTS CD-96 AND CD-97 CONDENSATE BOOSTER PUMP SUPPORTS

The purpose of this procedure is to repair two pipe supports prior to placing Condensate Booster Pumps back in service. This procedure will allow work to be accomplished in the Turbine Building Basement, above condensate cooler.

SM-2512.95 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE MS-300; MAIN STEAM OUTSIDE CONTAINMENT - COMPLETION OF ALL REMAINING PIPE SUPPORTS

The purpose of this procedure is to provide instruction for completing the seismic upgrade of all remaining pipe supports on Analysis Line MS-300. This procedure will allow work to be accomplished in the following general areas of main steam piping: Fascade (MSU-17, 23, 26, 28); Intermediate Building - clean side (MSU-40, 41, 42, 45, 46); main steam header (MSU-38, 47-59).

SM-2512.97 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE FW-301; MAIN FEEDWATER FROM FW REG. VALVE TO A STEAM GENERATOR - COMPLETION OF ALL REMAINING PIPE SUPPORTS

The purpose of this procedure is to provide instruction for seismic upgrade of all remaining pipe supports on Analysis Line FW-301. This procedure will allow work to be accomplished in the Intermediate Building, Clean Side (FWU-14, 16, 17, 18, 19) (FW-23) and Turbine Building (FWU-22, 25, 27).

SM-2512.98 SEISMIC UPGRADE - RELOCATION OF CIRCUIT G232A

The purpose of this procedure is to relocate circuit G232A (from Terminal Box 175 to Valve Controller for CV-56, "A" S/G Atmospheric Steam Dump Valve.) This procedure will allow work to be accomplished in the Intermediate Building clean side.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-2606.1 MECHANICAL INSTALLATION OF THE POST ACCIDENT SAMPLING SYSTEM

The purpose of this procedure is to provide guidance in the performance of the Mechanical Installation of the P.A.S.S.

SM-2512.97 SEISMIC UPGRADE OF PIPE SUPPORTS ON ANALYSIS LINE FW-301; MAIN FEEDWATER FROM FW REG. VALVE TO A STEAM GENERATOR - COMPLETION OF ALL REMAINING PIPE SUPPORTS

The purpose of this procedure is to provide instruction for seismic upgrade of all remaining pipe supports on Analysis line FW-301. This procedure will allow work to be accomplished in the Intermediate Building, Clean side (FWU-14, 16, 17, 18, 19) (FW-23) and Turbine Building (FWU-22, 25, 27).

SM-2512.98 SEISMIC UPGRADE - RELOCATION OF CIRCUIT G232A

The purpose of this procedure is to relocate circuit G232A (from Terminal Box 175 to Valve Controller for CV-56, "A" S/G Atmospheric Steam Dump Valve.) This procedure will allow work to be accomplished in the Intermediate Building clean side.

SM-2606.1A STEAM GENERATORS 1A AND 1B BLOWDOWN SAMPLING LINE INSTALLATION

The purpose of this procedure is to provide instructions to the installation and hydrostatic testing of the new Steam Generator blowdown sampling lines.

SM-2606.2 ELECTRICAL INSTALLATION OF POST ACCIDENT SAMPLING SYSTEM

The purpose of this procedure is to provide guidance to the electrical installation portion of the Post Accident Sampling System.

SM-2606.3 P.A.S.S. EQUIPMENT MOUNTING AND MASONRY WORK

The purpose of this procedure is to provide guidance to the equipment mounting and masonry work associated with the Post Accident Sampling System Modification.

SM-2606.4C FLUSH AND HYDROSTATIC/PNEUMATIC TESTS OF POST ACCIDENT SAMPLING SYSTEM BALANCE OF PIPING

The purpose of this procedure is to provide instructions for the performance of hydrostatic/pneumatic tests of the Post Accident Sampling System balance of piping.

SM-2606.5B POST ACCIDENT SAMPLING SYSTEM VALVE TEST

The purpose of this procedure is to provide instructions for the pre-operational testing of remotely operated PASS valves to ensure that they function in accordance with design intent.

SM-2606.5C POST ACCIDENT SAMPLING SYSTEM SUMP SAMPLE PUMP TEST

The purpose of this pre-operational test is to ensure that the sump sample pump and associated piping can function in the manner intended by design.

SM-2606.5D PRE-OPERATIONAL TEST PASS WASTE EVACUATING COMPRESSOR

The purpose of this pre-operational test if to ensure that the evacuating compressor (PAS-C-200) of the Post Accident Sampling System (PASS), the associated piping of the compressor, and the transfer pump by-pass utilizing nitrogen pressure operate as intended by design.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

SM-2606.5J PASS INSTRUMENTATION CALIBRATION AND VERIFICATION TEST

The purpose of this test is to verify that Post Accident Sampling System (PASS) instrumentation and interlocking devices have been calibrated in accordancd with accepted procedures.

SM-2606.6 GAS CHROMATOGRAPH ACCEPTANCE TEST

The purpose of this test is to verify that the PASS instrumentation meets the requirements of NUREG-0737 Section II-b.3.

SM-2606.6A pH MONITOR ACCEPTANCE TEST

The purpose of this test procedure is to verify the calibration of the pH monitor.

SM-2606.6B GAS CHROMATOGRAPH ACCEPTANCE TEST

The purpose of this procedure is to establish the calibration constants for the scales of the Gas Chromatograph.

SM-2606.6E BORON ANALYZER CALIBRATION

The purpose of this test is to verify the Boron Analyzer Calibration.

SM-2606.6G DIONEX ANION CHROMATOGRAPH CALIBRATION VERIFICATION FOR CHLORIDE

The purpose of this procedure is to demonstrate a method for the calibration of the Dionex Ion Chromatograph and to show that analysis is possible at a concentration of 10 ppb.

SM-2606.6H DISSOLVED OXYGEN VERIFICATION TEST

The purpose of this test procedure is to verify the calibration of the dissolved O_2 monitor.

SM-2606.6M CONDUCTIVITY MONITOR ACCEPTANCE TEST

The purpose of this procedure is to calibrate the conductivity monitor with known samples for assurance that unit will meet Design Criteria.

SM-2606.7 INSTALLATION AND TESTING OF DESIGN CHANGE DCN-014 TO THE P.A.S.S.

The purpose of this procedure is to provide the necessary guidelines to install and test the design changes for the Post Accident Sampling System addressed in the NUS Design Change Notice 5486-DCN-014. This procedure will allow work to be accomplished in the Intermediate Building - controlled side.

SM-2606.8 HYDROSTATIC TESTS AND INSERVICE LEAK INSPECTIONS FOR THE POST ACCIDENT SAMPLING SYSTEM

The purpose of this procedure is to provide the necessary guidelines for Hydrostatic Testing of the welds on valve 10017, Line PAS-N (53), Line PAS-R (52). Inservice Leak Inspections of Lines PAS-N (66) and PAS-N (57) will also be completed under this procedure.

SM-2606.9 INSTALLATION OF THE ORBISPHERE HIGH SENSITIVITY OXYGEN DETECTOR FOR THE POST ACCIDENT SAMPLING SYSTEM

The purpose of this procedure is to provide the necessary guidelines for the installation of the Orbisphere High Sensitivity Oxygen Detector.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3199.1 VITAL BATTERY LOAD FLOW MONITOR INSTALLATION

The purpose of this procedure is to provide guidance for the installation of cable, conduit, and supports for the vital battery load flow monitor.

SM-3199.1A FUNCTIONAL TEST FOR VITAL BATTERY LOAD FLOW MONITOR MODIFICATION

The purpose of this procedure is to provide the instructions for the functional testing of the vital battery flow monitors on the "A" and "B" batteries and the TSC Battery.

SM-3199.2 INSPECTION AND REPAIR OF THE VITAL BATTERY LOAD FLOW MONITORS

The purpose of this procedure is to provide the instructions for the functional testing of the vital battery load flow monitors on the "A" and "B" batteries and the TSC Battery.

SM-3199.2A SETPOINT TEST FOR VITAL BATTERY LOAD FLOW MONITORS

The purpose of this procedure is to provide the instructions for the alarm setpoint testing of the vital battery load flow monitors on the "A" and "B" batteries.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3316.1 SERVICE WATER PUMPS STRUCTURAL UPGRADE

The purpose of this procedure is to provide the guidance necessary to perform the structural upgrade by adding seismic lateral supports to the submerged portion of each service water pump near the pumps suction. This procedure will allow work to be accomplished in the Screen House.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3319.2 ACCEPTANCE TESTING OF THERMAL OVERLOAD BYPASS RELAYS

The purpose of this procedure is to install Thermal Overload (TOL) "Bypass" on selected motor-operated valves:

871A MOV Cross-Connect between "1C" and "1A" SI Pump Discharge

871B MOV Cross-Connect between "1C" and "1B" SI Pump Discharge

826A MOV from boric acid tanks to SI pumps

826B	MOV from boric acid tanks to SI pumps
826C	MOV from boric acid tanks to SI pumps
826D	MOV from boric acid tanks to SI pumps
825A	MOV from RWST to SI pump suction
825B	MOV from RWST to SI pump suction
313	Seal Water Return Isolation
813	Supply CC to reactor support cooling
814	Return CC from reactor support cooling
852A	MOV from RHR pumps to Reactor Vessel
852B	MOV from RHR pumps to Reactor Vessel
4007	1A Motor Driven Auxiliary Feedwater Pump Discharge Valve
4008	1B Motor Driven Auxiliary Feedwater Pump Discharge Valve
4613	Turbine Building S.W. Isolation Valve 1B2
4614	Turbine Building S.W. Isolation Valve 1A1
4663	Air Conditioning Chillers S.W. Isolation Valve 1A1
4664	Turbine Building S.W. Isolation Valve 1A2
4670	Turbine Building S.W. Isolation Valve 1B1
4609	Intake Screen Wash Isolation Valve 1A1
4733	Air Conditioning Chillers S.W. Isolation Valve 1A2
4780	Intake Screen Wash Isolation Valve 1A2

This procedure will test the T.O.L. bypass relays whose contacts will shunt the normally closed overload relay contacts and ensure valve operability during Safety Injection signal even though the T.O.L. relay may have operated.

SM-3319.4 PHASE ROTATION CHECK PRIOR TO BREAKER CHANGEOUT

The purpose of this procedure is to perform a documented survey of phase rotation on breakers to be replaced during the spring 84 outage.

SM-3319.5 MCC-1C BREAKER REPLACEMENT

The purpose of this procedure is to provide instructions for breaker replacement at specified positions on MCC 1A.

SM-3319.6 PHASE ROTATION CHECK OF BREAKERS REPLACED ON MCC 1C

The purpose of this procedure is to verify proper phase rotation. This procedure will allow work to be accomplished in the Control Room and Auxiliary Building - top floor. The general purpose of this modification is to provide proper breaker coordination.

SM-3319.7 MCC 1H BREAKER REPLACEMENT

The purpose of this procedure is to provide the necessary instruction for the functional testing of the breakers on MCC 1C and 1H after breaker changeout.

SM-3319.9 PHASE ROTATION CHECK OF REPLACED BREAKER ON MCC 1H

The purpose of this procedure is to verify proper phase rotation.

SM-3319.10 MCC 1B BREAKER REPLACEMENT

The purpose of this procedure is to provide instructions for breaker replacement at specified positions on MCC-1B. This procedure will allow work to be accomplished in the Turbine Building and Intermediate Floor.

SM-3319.11 PHASE ROTATION CHECK OF BREAKERS REPLACED ON MCC 1B

The purpose of this procedure is to verify proper phase rotation. This procedure will allow work to be accomplished in the Control Room and Turbine Building - Intermediate Floor.

SM-3319.12 FUNCTIONAL TEST OF REPLACEMENT BREAKERS ON MCC 1C AND 1H

The purpose of this procedure is to provide the necessary instruction for the functional testing of the breakers on MCC 1C and 1H after breaker changeout.

SM-3319.13 MCC 1B FUNCTIONAL TEST OF REPLACEMENT BREAKERS

The purpose of this procedure is to provide the necessary instruction for the functional testing of the changeout breakers on MCC 1B.

SM-3319.14 MCC 1D AND 1J BREAKER REPLACEMENT

The purpose of this procedure is to provide instructions for breaker replacement at specified positions on MCC 1D and 1J.

SM-3319.15 PHASE ROTATION OF BREAKERS REPLACED ON MCC 1D AND 1J

The purpose of this procedure is to verify proper phase rotation of breakers installed on MCC 1D and 1J. This procedure will allow work to be accomplished in the Auxiliary Building, Intermediate Floor and Diesel Generator Room.

SM-3319.18 MCC 1A BREAKER REPLACEMENT

The purpose of this procedure is to provide instructions for breaker replacement at specified positions on MCC 1A.

SM-3319.19 PHASE ROTATION CHECK OF BREAKERS REPLACED ON MCC 1A

The purpose of this procedure is to verify proper phase rotation of breakers installed in MCC 1A. This procedure will allow work to be accomplished in the Turbine Building Basement (West End).

SM-3319.20 FUNCTIONAL TESTING OF REPLACEMENT BREAKERS ON MCC's 1D AND 1J

The purpose of this procedure is to provide the necessary direction for the performance of functional testing on the replacement breakers on MCC 1D and MCC 1J.

SM-3319.21 FUNCTIONAL TESTING OF REPLACEMENT BREAKERS ON MCC 1A

The purpose of this procedure is to provide the necessary direction to allow functional testing of the replacement breakers on MCC 1A.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3323.1 FIRE HAZARD REDUCTION MODIFICATION - SCREEN HOUSE

The purpose of this procedure is to describe the steps necessary to install Fire Hazard Reduction Modifications in the Screen House at the Diesel Driven Fire Pumps and Diesel Fuel Storage Tank area.

This completed modification procedurs was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3582.1 STRUCTURAL STEEL UPGRADE, FIX F-1

The purpose of this procedure is to provide the instructions necessary to perform the structural steel upgrade for fix F-1.

SM-3582.2 STRUCTURAL STEEL UPGRADE, FIX F-2

The purpose of this procedure is to provide the instructions necessary to perform the structural steel upgrade for fix, F-2.

SM-3582.3 STRUCTURAL STEEL UPGRADE IN CONJUNCTION WITH FACADE CONCRETE BASES

The purpose of this procedure is to provide the instructions necessary to perform structural steel upgrade in conjunction with facade concrete base modifications.

SM-3582.4 STRUCTURAL STEEL UPGRADE, INTERMEDIATE BUILDING AT FLOOR ELEVATION 315'-4" FIX 1B-3

The purpose of this procedure is to provide the instructions necessary to perform the structural steel upgrade in the Intermediate Building at floor elevation 315'-4".

SM-3582.5 STRUCTURAL STEEL UPGRADE, INTERMEDIATE BUILDING AT PLATFORM ELEVATION 315'-4" FIX 1B-5

The purpose of this procedure is to provide the instructions necessary to perform the structural steel upgrade in the Intermediate Building at Platform Elevation 315'-4".

SM-3582.9 STRUCTURAL STEEL UPGRADE, COLUMN LINE 8 AT COLUMNS F1-G STEEL MODIFICATION TO FACILITATE CONCRETE PLACEMENT, FIX F-9

The purpose of this procedure is to provide the direction necessary to modify existing structural steel at column line 8 prior to concrete placement.

SM-3582.10 REINFORCING STEEL AND CONCRETE FOR THE FACADE STRUCTURE STRUCTURAL UPGRADE

The purpose of this procedure is to provide direction for excavation, rebar placement and concrete placement associated with the structural steel upgrade, facade structure east of the transformer yard.

SM-3582.11 STRUCTURAL STEEL UPGRADE, INTERMEDIATE BUILDING AT FLOOR ELEVATION 298'-4", FIX 1B-6-1

The purpose of this procedure is to provide the instructions necessary to perform the structural steel upgrade at floor elevation 298'-4", Column line 4c.

SM-3582.12 STRUCTURAL STEEL UPGRADE, COLUMN LINES 8A-8A1 AT COLUMN "J", ELEVATION 293'-0" THROUGH ELEVATION 317'-0", FIX F-4

The purpose of this procedure is to provide the direction necessary to modify existing structural steel adjacent to the equipment hatch shield wall at column lines 8a-8a1 and Column "J" from Elevation 293'-0" through Elevation 317'-0".

SM-3582.13 STRUCTURAL STEEL UPGRADE ALONG COLUMNS 8, 8A, AND 8A1 IN A N-S DIRECTION FROM COLUMN LINES F THROUGH L (FACADE ELEV. 277'-11" TO ELEV. 358'-5") FIX F-9

The purpose of this procedure is to provide the direction necessary to modify the structural steel framing in the Facade area outside the Intermediate Building. This work includes beams and columns in a north/south direction below and adjacent to the "B" steam line outside the Intermediate Building.

SM-3582.14 STRUCTURAL STEEL UPGRADE ALONG COLUMN LINE-4 IN A NORTH-SOUTH DIRECTION AT CEILING ELEVATION INSIDE DOOR 37 FIX 1B-11

The purpose of this procedure is to provide the direction necessary to modify the horizontal beam and its attachments by adding plate steel to the upper and lower members and to modify the attachment at Column F-4. This procedure will allow work to be accomplished in the Intermediate Building - (clean) inside door #37 at the ceiling elevation below intermediate floor elevation 278'-4".

SM-3582.15 STRUCTURAL STEEL UPGRADE ALONG COLUMN LINE "J" INCLUDING COLUMNS 8A-8A1, ELEVATION 302'-325' ABOVE EQUIPMENT HATCH CONCRETE ENCLOSURE (FIX F-6)

The purpose of this procedure is to provide the direction necessary to modify columns 8a and 8a1 by adding plates to create a box beam structure.

SM-3582.16 STRUCTURAL STEEL UPGRADE ALONG COLUMN LINE "L" BETWEEN COLUMNS 7B-8A AT ELEVATION 301' TO 312' (FIX F-6)

The purpose of this procedure is to provide the direction necessary to modify the horizontal beams and attachments along column line "L" from column 7b to column 8a.

SM-3582.17 STRUCTURAL STEEL UPGRADE ALONG COLUMN LINE "H", INCLUDING COLUMNS 8A - 8A1, ELEVATION 306' - 318', FIX F-3

The purpose of this procedure is to provide the direction necessary to modify Columns 8a and 8a1 by adding plates to create a box beam structure. Additional structural steel will be added between these columns for rigidity and support. This procedure will allow work to be accomplished in the Facade area at column H, overhead, Elevation 306' to 318' inclusive.

SM-3582.18 STRUCTURAL STEEL UPGRADE BETWEEN COLUMN LINE 5 & 6 IN A NORTH-SOUTH DIRECTION BELOW FLOOR ELEVATION 278'-4" (FIX 1B-7)

The purpose of this procedure is to provide the direction necessary to modify the horizontal beam and its attachments by adding plate steel to form box construction and modification of the beam attachment to column line F. This procedure will allow work to be accomplished in the Intermediate Building (clean) inside door #44 at the ceiling elevation below intermediate floor elevation 278'-4".

SM-3582.19 STRUCTURAL STEEL UPGRADE BETWEEN COLUMN LINE 6B 7 7 IN A NORTH-SOUTH DIRECTION BELOW FLOOR ELEVATION 278'-4" (FIX 1B-8)

The purpose of this procedure is to provide the direction necessary to modify the horizontal beam and its attachments by adding plate steel, and modification of the beam attachment to column line F. This procedure will allow work to be accomplished in the Intermediate Building (clean) inside door #44 at the ceiling elevation below intermediate floor elevation 278'-4".

SM-3582.20 STRUCTURAL STEEL UPGRADE BETWEEN COLUMN LINE 7 & 7B IN A NORTH-SOUTH DIRECTION BELOW FLOOR ELEVATION 278'-4" (FIX 1B-9)

The purpose of this procedure is to provide the direction necessary to modify the horizontal beam and its attachments by adding plate steel, and modification of the beam attachment to column line F. This procedure will allow work to be accomplished in the Intermediate Building (clean) inside door #44 at the ceiling elevation below intermediate floor elevation 278'-4".

SM-3582.21 STRUCTURAL STEEL UPGRADE BETWEEN COLUMN LINE 4C & 5 BELOW FLOOR ELEVATION 278'-4" (FIX 1B-10)

The purpose of this procedure is to provide the direction necessary to modify the horizontal beam and support at column line F. This procedure will allow work to be accomplished in the Intermediate Building (clean) inside door #44 at the ceiling elevation below intermediate floor elevation 278'-4".

SM-3582.22 STRUCTURAL STEEL UPGRADE IN THE INTERMEDIATE BUILDING BETWEEN COLUMN LINES 3D & 5 AND ELEVATIONS 276' & 315'-4" (FIX 1B-4 & 1B-14)

The purpose of this procedure is to provide the direction necessary to modify the horizontal beam in the Intermediate Building. This procedure will allow work to be accomplished in the Intermediate Building (clean) below floor elevation 278'-4" up to floor elevation 315'-4" above door 37.

SM-3582.24 STRUCTURAL STEEL UPGRADE BETWEEN COLUMN LINES 6B-7 IN A NORTH-SOUTH DIRECTION BELOW FLOOR ELEVATION 278'-4" (FIX 1B-15)

The purpose of this procedure is to provide the direction necessary to upgrade a horizontal beam by adding plate steel. This procedure will work to be accomplished in the Intermediate Building (clean) inside door #44 at the ceiling elevation below intermediate floor elevation 278'-4".

SM-3582.25 STRUCTURAL STEEL UPGRADE BETWEEN COLUMN LINES 6B-7B BELOW INTERMEDIATE BUILDING FLOOR ELEVATION 298'-4" (FIX 1B-6)

The purpose of this procedure is to provide the direction necessary to modify the horizontal beam in a N-S direction adjacent to Column Line #7 and the horizontal beam running from Column F3 to Column G1, including beam attachments. This procedure will allow work to be accomplished in the Intermediate Building (clean) inside door #44 at the ceiling elevation above the "B" steam line PORV (CV-57). Beam running adjacent to the Containment wall columns F3-G1 and the N-S beam located west of Column Line #7.

SM-3582.26 ELECTRICAL RELOCATIONS ASSOCIATED WITH THE STRUCTURAL STEEL UPGRADE

The purpose of this procedure is to provide the direction to modify or relocate existing electrical conduit supports and other miscellaneous equipment supports that interfere with installation of Structural Steel in the Intermediate Building (clean). This procedure will allow work to be accomplished in the Intermediate Building (clean) basement and intermediate levels.

SM-3582.27 PIPE SUPPORT RELOCATIONS TO FACILITATE STRUCTURAL STEEL PLACEMENT IN THE CLEAN INTERMEDIATE BUILDING

The purpose of this procedure is to provide the instructions necessary to relocate Fire Suppression and Service Air System pipe supports necessitated by the Structural Steel Upgrade Program at Ginna Station. This procedure will allow work to be accomplished in the Intermediate Building (clean) below floor elevation 278'-4".

SM-3582.28 STRUCTURAL STEEL UPGRADE AT INTERMEDIATE BUILDING ELEVATION 276'-5" FROM COLUMN 4C/G2 TO COLUMN 3E/H AND VERTICAL COLUMN IN COLUMN LINE 3D (FIX 1B-16)

The purpose of this procedure is to provide the instruction necessary to install an I-Beam in a horizontal plane at elevation 276'-5" and a vertical column in column line 3d. This procedure will allow work to be accomplished in the Clean Intermediate Building inside door 437 adjacent to and above the Motor Driven AFW Pumps.

SM-3582.29 STRUCTURAL STEEL UPGRADE ABOVE ELEVATION 278'-4" BETWEEN COLUMNS F3 AND G1, FIX 1B-19

The purpose of this procedure is to provide the direction necessary to modify the structural steel between columns F3 and G1 by addition of a new structural beam and its attachments at floor elevation 278'-4". This procedure will allow work to be accomplished in the Intermediate Building (clean) adjacent to the containment wall on the Intermediate (MSIV) floor level.

SM-3582.30 STRUCTURAL UPGRADE OF THE CATWALK SUPERSTRUCTURE IN THE CLEAN INTERMEDIATE BUILDING (FIX 1B-17)

The purpose of this procedure is to add new structural members and modify some existing structural members supporting the catwalk at elevation 267'-3" in the Intermediate Building. This procedure will allow work to be accomplished in the Clean Intermediate Building.

SM-3582.32 SPRINKLER HEAD RELOCATION TO FACILITATE INSTALLATION OF PLATE STEEL FOR FIX 1B-7

The purpose of this procedure is to provide the instruction necessary to relocate a sprinkler head on zone S-15. (The as-found location of this sprinkler head conflicts with the installation of plate steel on Fix 1B-7). This procedure will allow work to be accomplished in the Clean Intermediate Building Basement level ceiling elevation 15'-9" west of column 5'-7" south of column line F.

SM-3582.33 ELECTRICAL RELOCATION OF STEAM GENERATOR BLOWDOWN CONTROL/SIGNAL ASSOCIATED WITH STRUCTURAL UPGRADE OF COLUMN F 4/5 (FIX 1B-18)

The purpose of this procedure is to provide the direction necessary to relocate steam generator blowdown electrical components mounted on Column F 4/5 in the clean Intermediate Building. This procedure will allow work to be accomplished in the Clean Intermediate Building inside door #37 on column F 4/5 (Adjacent to the Blowdown AOVs).

SM-3582.34 RELOCATION OF ELECTRICAL EQUIPMENT SUPPORTS ATTACHED TO THE CATWALK SUPERSTRUCTURE AT ELEVATION 267'-3" (FIX 1B-17)

The purpose of this procedure is to provide the direction necessary to modify or relocate some existing electrical equipment supports necessary to complete installation of Structural Supports for the catwalk at Elevation 267'-3" (Fix 1B-17). This procedure will allow work to be accomplished in the Intermediate Building (Clean Side).

SM-3582.35 DISPOSITION OF PIPING AND ELECTRICAL INTERFERENCES FOR BEAM INSTALLATION BETWEEN COLUMNS 4C/G2 AND 3E/H (FIX 1B-16)

The purpose of this procedure is to provide instruction for the relocation of piping and electrical conduit/wiring to facilitate placement of an additional structural beam at elevation 276'-5" in the Intermediate Building (clean side). This procedure will allow work to be accomplished in the Clean Side Intermediate Building below floor elevation 278'-4".

SM-3582.39 RELOCATION OF AUXILIARY FEEDWATER PIPING AND SUPPORTS TO FACILITATE STRUCTURAL UPGRADE 1B-16.

The purpose of this procedure is to provide the direction necessary to relocate some of the Auxiliary Feedwater piping and piping support to allow placement of a column adjacent to the Motor Driven Auxiliary Feedwater Pumps (FIX 1B-16). This procedure will allow work to be accomplished in the Clean Intermediate Building - basement level.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3595.1 CONTROL ROOM HABITABILITY - ELECTRICAL FIELD WIRING OF NEW ISOLATION DAMPERS AND NEW BENCHBOARD CONTROL PANEL

The purpose of this procedure is to provide the guidance necessary to perform the field wiring electrical work associated with the modification of the Control Room Heating Ventilation and Air Conditioning System, Control and Isolation Circuitry. This procedure will allow work to be accomplished in the Control Room, Air Handling Room, Turbine Building and Relay Room. The general purpose of this modification is to upgrade the Control Room Ventilation System to meet the requirements of NUREG-0737 Item III.D.3.4. The modification involves the installation of three HVAC Isolation Dampers, a toxic gas monitor and a radiation monitor.

SM-3595.4 CONTROL ROOM HABITABILITY - ELECTRICAL TIE-IN TO EXISTING SYSTEM, TOXIC GAS AND RADIATION MONITOR WIRING, DAMPER STROKE TEST, AND HVAC OPERABILITY TEST

The purpose of this procedure is to provide the guidance necessary to terminate all new wiring to the existing electrical circuitry for the Control Room HVAC System, to route and terminate wires to toxic gas and radiation monitor to test the system operability after terminations are completed and to stroke test new dampers.

SM-3595.5 FUNCTIONAL TEST AND AIR BALANCE OF CONTROL RELAY AND COMPUTER ROOM HVAC SYSTEM

The purpose of this procedure is to air balance the Control, Relay and Computer Room HVAC System and to functionally test the newly installed isolation dampers.

SM-3595.6 CONTROL ROOM HABITABILITY - INSTALLATION OF ISOKINETIC NOZZLES, TUBING, SUPPORTS AND ASSOCIATED EQUIPMENT

The purpose of this procedure is to provide the guidance necessary to install Isokinetic Nozzle, Sample Tubing, Gas Bottle Tubing, New Valves, Tubing, Calibration Gas Bottle Supports, Radiation Monitor, Toxic Gas Monitor and Associated Equipment.

SM-3595.7 START-UP AND TEST OF TOXIC GAS ANALYZER GA-80

The purpose of this procedure is to provide the guidance necessary to start-up and test the Chlorine Analyzer and the Ammonia Analyzer.

SM-3595.8 START-UP AND TEST OF AIRBORNE RADIATION STACK MONITOR SM-102

The purpose of this procedure is to provide the guidance necessary to start-up and test the Airborne Radiation Stack Monitor SM-102.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-3645.1 GROUNDWATER LEVEL MONITORING WELLS

The purpose of this procedure is to provide the guidelines necessary to install the transducer, underground conduit and the wire associated with the level monitor to be located in the SAFW room annex.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3749.1 AOV-1599 POSITION INDICATION MODIFICATION - MAIN CONTROL BOARD PORTION

The purpose of this procedure is to provide instructions for the installation of a switch, lights, and a fuse block in the M.C.B., with their associated wiring.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SM-3751.1 PLANT VENT REPLACEMENT - ELECTRICAL

The purpose of this procedure is to provide the guidance necessary to perform the electrical work associated with the replacement and operation of the Main Plant vent and Intermediate Building supply and exhaust system dampers. This procedure will allow work to be accomplished in the Clean side Intermediate Building 2nd & 3rd levels and Hot side Intermediate Building 2nd level. The general purpose of this modification is to upgrade the Auxiliary Building exhaust system and the Intermediate Building supply and exhaust system to minimize the amount of steam that will pass through the wall penetration in the event of a steam break on the clean side of the Intermediate Building.

SM-3751.2 PLANT VENT REPLACEMENT - MECHANICAL

The purpose of this procedure is to provide the guidance necessary to perform the mechanical work associated with the replacement and operation of the Main Plant Vent ductwork and dampers. Along with inspection and cleaning of Intermediate Building Supply and Exhaust System.

SM-3751.3 FUNCTIONAL TEST AND CALIBRATION OF AUXILIARY BUILDING EXHAUST SYSTEM AND INTERMEDIATE BUILDING SUPPLY AND EXHAUST SYSTEM - DAMPER ELECTRICAL TRIP CIRCUITRY

The purpose of this procedure is to demonstrate that the electrical and instrumentation and control modifications made, function as designed and are consistent with the Design Criteria.

These completed modification procedures were reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with these changes to the facility.

SM-4072.1 REACTOR COOLANT PUMP VIBRATION MONITORING INSTRUMENTATION REPLACEMENT

The purpose of this procedure is to replace the existing Reactor Coolant Pump vibration monitoring instrument rack with one with computer monitoring capabilities. This procedure will allow work to be accomplished in the Control Room.

This completed modification procedure was reviewed by the PORC committee and no unreviewed safety questions, technical specification changes or violations were involved with this change to the facility.

SECTION C - SPECIAL TESTS (STs) AND EXPERIMENTS

This section contains a description of special tests and experiments performed in the facility, pursuant to the requirements of 10CFR50.59(b). There were no experiments conducted.

ST-81.1 DRUMMING OF WASTE EVAPORATOR BOTTOMS AND MISCELLANEOUS WASTE

This analysis covers the special test #ST 81-1 for the NUMANCO Drumming Unit.

The consequences of a radioactive liquid waste system leak are not increased by the special test because the new system will interface with the liquid waste system in similar fashion to the existing system. All liquid waste carrying components will withstand maximum internal pressure and will be secured to the NUMANCO drum unit (anchored) and the liquid waste disposal system. They will not be routed in proximity to safeguard equipment.

The proposed special test neither penetrates any existing fire barriers nor does it affect any existing fire suppression system. The special test does not increase any previously determined fire loadings.

The special test neither affects nor is affected by any flood or storm previously evaluated.

The consequences of an earthquake are not increased by this modification because the modification has been designed to withstand a seismic event, using the equivalent static load method.

The margins of safety during normal operations and transient conditions anticipated during the life of the plant have not been reduced. The adequacy of structures, systems, and components provided by the prevention of accidents have not been affected.

ST-82.1 HOLDING CURRENT CHECK OF GOULD J13 SERIES RELAYS IN THE CONTAINMENT ISOLATION RELAY PANELS & SPARES IN STOCKROOM

The purpose of this test is to provide a procedure for checking the Hold Current of Gould J13 Series Relays in the Containment Isolation Relay Room and Spares in Stockroom.

All J13, DC, relays should have "hold in" currents no greater than 40mm or less than 22.00ma after the readings are adjusted to 132 volts D.C. input voltage. Relays not meeting these current specifications will be replaced per M-81.1.

It has been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems and components provided for the prevention of accidents and the mitigation of consequences of accidents have not been affected by the performance of this test.

ST-83.01.1 STEAM GENERATOR CHANNEL HEAD DILUTE CHEMICAL DECONTAMINATION

The purpose of this test is to cover the steps necessary for A and B S/G channel head dilute chemical decontamination.

The primary reason for using the decontamination process is to affect a man-rem reduction during the subsequent nozzle dam installation and sleeving program. The dose estimate for the steam generator maintenance and repair program without decontamination is approximately 600 man-rem. The decontamination factor for this process is estimated to be in the 2 - 10 range and thus a several hundred man-rem reduction will result.

It has been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems and components provided for the prevention of accidents and the mitigation of consequences of accidents have not been affected by the performance of this test.

ST 84-02 TEMPORARY INSTALLATION AND OPERATION OF MOBILE WASTE SHREDDING SYSTEM (MWSS)

This special test covers the temporary installation and operation of C.E. Mobile Waste Shredder System (MWSS). The Mobile Waste Shredder System is a truck mounted volume reduction system used for the shredding of dry active wastes (D.A.W.) for compactor enhancement. While on site, the shredder trailer will be located in the southeast area of door 27.

It has been determined that the margins of safety during normal operations and transient conditions anticipated during the life of the station have not been affected. It has also been determined that the adequacy of structures, systems and components provided for the prevention of accidents and the mitigation of consequences of accidents have not been affected by the performance of this test.

The PORC committee performed a safety evaluation and determined that no unreviewed safety questions, technical specification changes or violations were involved with these procedures.