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EXECUTIVE VICE PRESIDENT  
NUCLEAR

102-03138-WLS/AKK/SAB/PMM  
September 30, 1994

U. S. Nuclear Regulatory Commission  
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Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)**  
**Units 1, 2, & 3**  
**Docket Nos. STN 50-528/529/530**  
**10 CFR 50.59 Annual Report for the 1993 Calendar Year**  
**File: 94-056-026**

Pursuant to 10 CFR 50.59(b)(2), Arizona Public Service Company is submitting the enclosed annual report. This report is a compilation of the changes completed during the 1993 calendar year at PVNGS Units 1, 2, & 3. The enclosed report contains a brief description of the changes and a brief summary of the safety evaluation for each change.

For future annual reports, APS will provide them in conjunction with the annual UFSAR submittal. If you have any questions, please contact Angela K. Krainik at (602) 393-5421.

Sincerely,



WLS/AKK/SAB/PMM/pm

Enclosure

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**ENCLOSURE**

**PALO VERDE NUCLEAR GENERATING STATION**

**10 CFR 50.59 ANNUAL REPORT  
FOR 1993**

9410110151







## ACRONYM/ABBREVIATION DEFINITION

ACRONYM	DESCRIPTION	ACRONYM	DESCRIPTION
AAC	ALTERNATE ALTERNATING CURRENT	HVAC	HEATING, VENTILATION, AIR CONDITIONING
ACI	AUTO-CLOSURE INTERLOCK	HLSA	HIGH LEVEL STORAGE AREA
	ESSENTIAL AIR COOLING UNITS	LHRA	LOCKED HIGH RADIATION AREA
ADV	ATMOSPHERIC DUMP VALVE	LOCA	LOSS OF COOLANT ACCIDENT
AF	AUXILIARY FEEDWATER	LOP	LOSS OF OFFSITE POWER
AFAS	AUXILIARY FEEDWATER ACTUATION SYSTEM	LPMS	LOOSE PARTS MONITORING SYSTEM
ANI	AMERICAN NUCLEAR INSURERS	LR	LIQUID RADWASTE
ATWS	ANTICIPATED TRANSIENT WITHOUT SCRAM	LRS	LIQUID RADWASTE SYSTEM
CD	CONDENSATE SYSTEM	MCC	MOTOR CONTROL CENTER
CEA	CONTROL ELEMENT ASSEMBLIES	MNCR	MATERIAL NON-CONFORMANCE REPORT
CEDM	CONTROL ELEMENT DRIVE MECHANISM	NQR	NON-QUALITY RELATED
CEOG	COMBUSTION ENGINEERING OWNERS GROUP	ODCM	OUTGOING DOCUMENT CHANGE MANUAL
CIA	CONTAINMENT ISOLATION ACTUATION SIGNAL	PASS	POST ACCIDENT SAMPLING SYSTEM
COLSS	CORE OPERATING LIMIT SUPERVISORY SYSTEM	PPS	PLANT PROTECTION SYSTEM
CPVC	CROSS-LINKED POLYVINYL CHLORIDE	PWSCC	PRIMARY WATER STRESS CORROSION CRACKING
CRDR	CONDITION REPORTING DISPOSITION REQUEST	RAR	RELOAD ANALYSIS REPORT
CSAS	CONTAINMENT SPRAY ACTUATION SYSTEM	RCA	REACTOR COOLANT ACCIDENT
CW	CIRCULATING WATER SYSTEM	RCS	REACTOR COOLANT SYSTEM
DAFAS	DIVERSE AUXILIARY FEEDWATER ACTUATION SYSTEM	RPS	REACTOR PROTECTION SYSTEM
DAFAS	DRY ACTIVE WASTE PROCESSING STORAGE FACILITY	SBCV	STEAM BYPASS CONTROL VALVE
DCP	DESIGN CHANGE PACKAGE	SBO	STATION BLACKOUT
DG	DIESEL GENERATOR	SCAT	SPRAY CHEMICAL ADDITION TANK
DS	DOMESTIC WATER SYSTEM	SCC	STRESS CORROSION CRACKING
DVM	DIGITAL VOLTMETER	SDCHX	SHUTDOWN COOLING HEAT EXCHANGER
ECT	EDDY CURRENT TESTING	SDCS	SHUTDOWN COOLING SYSTEM
EER	ENGINEERING EVALUATION REQUEST	SESS	SAFETY EQUIPMENT STATUS SYSTEM
EGM	ELECTRIC GOVERNOR-MAGNETIC	SG	STEAM GENERATOR
EMDFT	EMERGENCY DEFEAT	SGTR	STEAM GENERATOR TUBE RUPTURE
EQ	EQUIPMENT QUALIFICATION	SI	SAFETY INJECTION
ERFDADS	EMERGENCY RESPONSE FACILITIES DATA ACQUISITION & DISPLAY SYSTEM	SIAS	SAFETY INJECTION ACTUATION SIGNAL
ESF	EMERGENCY SAFETY FEATURES	SMOD	SITE MODIFICATION
ESFAS	ENGINEERED SAFETY FEATURES ACTUATION SYSTEM	SPCR	SETPOINT CHANGE REQUEST
ESPS	ESSENTIAL SPRAY POND SYSTEM	SPDS	SAFETY PARAMETER DISPLAY SYSTEM
ETA	ETHANOLAMINE TEST	TLU	TOTAL LOOP UNCERTAINTY
FW	FEEDWATER	TMOD	TEMPORARY MODIFICATION
	GAS SERVICE SYSTEM	VOC	VOLATILE ORGANIC COMPOUNDS
GTG	GAS TURBINE GENERATOR	WO	WORK ORDER
HASRT	HIGH ACTIVITY SPENT RESIN TANK		
HELB	HIGH ENERGY LINE BREAK		







DOC TYPE	DOC NUMBER	DESCRIPTION	SUMMARY
Change		The change request provides for categorization of mixed liquid waste generated by special processes (i.e., decontamination) such as low-level radioactive waste. Currently, the laundry building in Unit One of PVNGS is being used to store this waste. This 50.59 provides justification for transfer and temporary storage (less than 5 years) of this waste in the Dry Active Waste Processing and Storage facility (DAWPS).	This change request did not introduce an unreviewed safety question. The change in the design of the DAWPS building does not affect the probability of the most limiting scenario based on a rupture of the RWT tank since there are no changes in the RWT structure or its design. Since this change does not alter or change the design of systems affecting the concentration of the RWT SOURCE TERM used in the analysis, the consequences of the accident evaluated would not be changed. The margin of safety defined in the technical specification bases for LCO 3.11.1.3 would not be affected by this change.
Contract	31CP-9KC07	This contract provides the modification of BWNS Operating Instructions for Tube Cleaning Prior to Tube Relaxation with Goodway Pneumatic Cleaning System. The portion of the tube which has been expanded into the tubesheet is cleaned utilizing a pneumatic cleaning system. The expanded region is then relaxed by heating it with a Tungsten Inert Gas (TIG) torch, which shrinks the expanded tube by relieving the compressive stress holding the tube in the tubesheet.	This contract did not introduce an unreviewed safety question. The final configuration resulting from removal of a portion of a tube and replacement of its primary to secondary separation function by plugging has been designed as a repair in accordance with ASME B&PV Section III and XI Code requirements. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from or increased probability of a design basis accident.
Contract	31CP-9RC05	Steam Generator tubes are a critical portion of the reactor coolant pressure boundary, and are therefore subject to degradation by a variety of mechanisms. In order to evaluate the causes of degradation, it is sometimes necessary to remove a sample of a degraded tube for detailed examination and testing. A portion of the tube is normally pulled out through the tubesheet, and plugs are installed in the tubesheet to seal the empty tube hole and the other remaining end of the tube. The process of removing steam generator tubes for laboratory analysis is performed with robotic equipment. When a tube sample is to be removed, the candidate tube must first be examined by eddy current to determine the size and location of all defects.	This procedure does not introduce an unreviewed safety question. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from or increased probability of a design basis accident. There would be no increased probability of a failure or degraded performance of any safety system. RCS pressure boundary is maintained with the installation of ASME certified plugs. The installation of welded plugs is governed by ASME Code Section XI.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Contract	31CP-9RC08	This contract provides modification of BWNS Operating Instructions for the Remote Tube Pull Jack Using the Manual Control Box to evaluate the causes of degradation. It is sometimes necessary to remove a sample of a degraded tube for detailed examination and testing.	This contract did not introduce an unreviewed safety question. The final configuration resulting from removal of a portion of a tube and replacement of its primary to secondary separation function by plugging has been designed as a repair in accordance with ASME B&PV Section III and XI Code requirements. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from or increased probability of a design basis accident. The probability of failure of the plugs is no greater than the probability of failure of the original tube.
Contract	31CP-9RC09	This contract provides BWNS Operating Instructions for Remote Tube and Tubesheet Machining in OTSG, .66, .750, and .875 Generators.	This contract did not introduce an unreviewed safety question. The final configuration resulting from removal of a portion of a tube and replacement of its primary to secondary separation function by plugging has been designed as a repair in accordance with ASME B&PV Section III and XI Code requirements. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from, or increased probability of a design basis accident.
Contract	31CP-9RC10	This contract provides modification of BWNS RSG Tube Relaxation Weldhead Operating Instructions Using the Flex-Torch System.	This contract did not introduce an unreviewed safety question. The final configuration resulting from removal of a portion of a tube and replacement of its primary to secondary separation function by plugging has been designed as a repair in accordance with ASME B&PV Section III and XI Code requirements. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from or increased probability of a design basis accident.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Contract	31CP-9RC11	<p>This contract provides the modification of BWNS Operating Instructions for Steam Generator tubes. SG Tubes are a critical portion of the reactor coolant pressure boundary, and are therefore subject to degradation by a variety of mechanisms. In order to evaluate the causes of degradation, it is sometimes necessary to remove a sample of a degraded tube for detailed examination and testing. A portion of the tube is normally pulled out through the tubesheet, and plugs are installed in the tubesheet to seal the empty tube hole and the other remaining end of the tube. The process of removing steam generator tubes for laboratory analysis is performed with robotic equipment. When a tube sample is to be removed, the candidate tube must first be examined by eddy current to determine the size and location of all defects.</p>	<p>This procedure does not introduce an unreviewed safety question. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from or increased probability of a design basis accident. There would be no increase probability of a failure or degraded performance of any safety system. RCS pressure boundary is maintained with the installation of ASME certified plugs. The installation of welded plugs is governed by ASME Code Section XI.</p>
Contract	31CP-9RC14	<p>Steam Generator tubes are a critical portion of the reactor coolant pressure boundary, and are therefore subject to degradation by a variety of mechanisms. In order to evaluate the causes of degradation, it is sometimes necessary to remove a sample of a degraded tube for detailed examination and testing. A portion of the tube is normally pulled out through the tubesheet, and plugs are installed in the tubesheet to seal the empty tube hole and the other remaining end of the tube. The process of removing steam generator tubes for laboratory analysis is performed with robotic equipment. When a tube sample is to be removed, the candidate tube must first be examined by eddy current to determine the size and location of all defects. This contract describes the manual welded plug installation for PVNGS SGs. BWNS has performed tube removal services utilizing the specified processes for more than 150 tubes in SGs designed by BWNS, Westinghouse, and CE.</p>	<p>This contract does not introduce an unreviewed safety question. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from or increased probability of a design basis accident. There would be no increased probability of a failure or degraded performance of any safety system. RCS pressure boundary is maintained with the installation of ASME certified plugs. The installation of welded plugs is governed by ASME Code Section XI.</p>







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Contract	31CP-9RC15	<p>Steam Generator tubes are a critical portion of the reactor coolant pressure boundary, and are therefore subject to degradation by a variety of mechanisms. In order to evaluate the causes of degradation, it is sometimes necessary to remove a sample of a degraded tube for detailed examination and testing. A portion of the tube is normally pulled out through the tubesheet, and plugs are installed in the tubesheet to seal the empty tube hole and the other remaining end of the tube. The process of removing steam generator tubes for laboratory analysis is performed with robotic equipment. When a tube sample is to be removed, the candidate tube must first be examined by eddy current to determine the size and location of all defects. This contract provides a summary for rolled plug removal by TIG relaxation using flex torch system to be used in conjunction with SG tube pull activities.</p>	<p>This contract does not introduce an unreviewed safety question. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from or increased probability of a design basis accident. There would be no increased probability of a failure or degraded performance of any safety system. RCS pressure boundary is maintained with the installation of ASME certified plugs. The installation of welded plugs is governed by ASME Code Section XI.</p>
Contract	31CP-9RC16	<p>Steam Generator tubes are a critical portion of the reactor coolant pressure boundary, and are therefore subject to degradation by a variety of mechanisms. In order to evaluate the causes of degradation, it is sometimes necessary to remove a sample of a degraded tube for detailed examination and testing. A portion of the tube is normally pulled out through the tubesheet, and plugs are installed in the tubesheet to seal the empty tube hole and the other remaining end of the tube. The process of removing steam generator tubes for laboratory analysis is performed with robotic equipment. When a tube sample is to be removed, the candidate tube must first be examined by eddy current to determine the size and location of all defects. This contract provides a summary for rolled plug removal by TIG relaxation using flex torch system to be used in conjunction with SG tube pull activities. This contract provides a summary of the procedure for drilling welded plugs in preparation for a welded plug.</p>	<p>This contract does not introduce an unreviewed safety question. The repairs will have integrity at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. There would be no additional radiation consequences from or increased probability of a design basis accident. There would be no increased probability of a failure or degraded performance of any safety system. RCS pressure boundary is maintained with the installation of ASME certified plugs. The installation of welded plugs is governed by ASME Code Section XI.</p>
CRDR	9-3-0104	<p>This CRDR provides revision of quality classification of fire breaks, as delineated in engineering study 13-CSA-09, from QAG to NQR. Fire breaks are not part of the fire protection features credited with protecting safety-related structures, systems, or components. They do not perform any function which would require them to have a quality assurance program.</p>	<p>This CRDR did not introduce an unreviewed safety question. The fire breaks are passive fire protection features installed within a fire zone. They do not increase nor decrease the probability of an accident (fire) in that zone. Fire breaks are bounded by the FHA zone analysis and do not participate in containment of the fire at the fire zone boundary. Fire breaks are not referenced in the Technical Specifications.</p>







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
CRDR	930068.05	NRC question 9A.118 states that the ceiling in the control room exit corridor (J-312) carries a 1-hour fire rating. The as-built condition is that the acoustic tile ceiling is non-combustible (less than 25 flame spread rating) but is not 1-hour rated. This is one of two egress paths out of the Control Room. There is another egress path available. The other function of this exit corridor ceiling would be to impede a fire originating in the adjacent rooms such as restrooms, kitchen, and shift supervisor office, from exposing the control room cabinets and equipment. In other words, a fire would have to propagate from an adjacent room, into the plenum space above its ceiling, then back down through the exit corridor ceiling into the electrical cabinet area of the Control Room complex.	This CRDR did not introduce an unreviewed safety question. This downward direction would not be a normal propagation path for a fire and there are not sufficient combustibles to support this propagation path. The plenum space is non-combustible construction with approximately 10 feet of vertical air space and very low combustible loading. Smoke detection is installed above the ceiling for early warning. A postulated fire of this type would have no adverse effect on the ability to achieve and maintain safe shutdown, as alternate shutdown capability from the remote shutdown panel remains available outside the Control Room. Fire protection is not addressed in the technical specifications. All aspects of the fire protection program are still applicable and no safety margins are reduced.
DCP	1 OJ-AF-088	The change removed blind flanges from drain lines and replaced them with pipe caps to reduce fatigue stress.	This DCP did not introduce an unreviewed safety question. The probability and consequences will be decreased due to increased reliability and reduced cases of fatigue failure.
DCP	1,2 OM-DG-052	Replace intercooler temperature valves with valves that have a center dead spot. This partial DCP is for 'B' diesel only.	This DCP did not introduce an unreviewed safety question. This does not increase the consequences of an accident previously evaluated. This does not increase the probability of a malfunction of Important to Safety equipment because it ensures correct operation of diesel intercoolers and because it does not adversely affect the operation of the equipment or active components.
DCP	1,2,3 FE-MA-060	This DCP replaces the existing oscillograph equipment with new digital fault recording equipment and installs satellite equipment in the Unit 1 Corridor Bldg. The installation will aid in analyzing electrical power system problems.	This DCP did not introduce an unreviewed safety question. The digital fault recording and satellite equipment are not safety related. This change is not associated with any equipment or systems required to mitigate the consequences of design basis accident as described in the FSAR.
DCP	1,2,3 FE-MA-065	This DCP replaces existing alarm relays in Normal Service transformers, ESF transformers, Start-up transformers, Generator Stepup transformers and Unit Aux. transformers. Replacement of non-class 1E relays enhance the system performance.	This DCP did not introduce an unreviewed safety question. This change does not alter the original design or construction standards. The change replaces relays with relays better suited for the low voltage/low current annunciator circuits and enhances the system performance and reliability. These relays do not interface with Class 1E systems nor can failure of the annunciator circuits induce adverse impacts of operation of the ESF services. The change will not prevent operation of any safety related equipment which would be involved in mitigating the consequences of any accidents described in the UFSAR.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	1,2,3 FE-QB-009	This DCP changes 2 fixtures at the MSSS 140' elev. from normal to essential lighting system. This will provide additional lighting at the ADVs in the event of failure of the normal lighting system. This change will potentially improve our capability to mitigate the consequences of a malfunction. This DCP increases the illumination level in the room by using existing fixtures rewired off the essential lighting panels.	This DCP does introduce an unreviewed safety question. No safety related equipment is affected. This change will potentially improve our capability to mitigate the consequences of a malfunction. This DCP increases the illumination level in the room by using existing fixtures rewired off the essential lighting panels. This change does not increase the possibility of an accident previously evaluated.
DCP	1,2,3 FE-QD-023	This DCP adds/modifies emergency lighting units in the Diesel Generator, Control and Auxiliary buildings. The DCP change provides fixtures with 8 hour capacity. Emergency lighting is not discussed in Chapter 15 (Accident Analysis). This DCP will improve our capability to mitigate the consequences of a design basis accident.	This DCP did not introduce an unreviewed safety question. This DCP change does not affect either the probability or consequences of an accident previously evaluated. This DCP change involves non-safety related equipment and only modifies the existing emergency lighting in the affected rooms. This DCP improves the illumination of the safe shutdown equipment. The change has not altered the intent of the original design.
DCP	1,2,3 FE-ZA-143	This change will install an additional light in stairway "F" (Auxiliary Bldg., El 183 ft.) The lighting fixture and associated power are not safety related, and not involved in any procedures in Section 8 of the FSAR.	This DCP did not introduce an unreviewed safety question. No change is required to the technical specification Section 3/4.8 because the lighting system and power source are not described in that document. The normal lighting installation is not associated with any equipment or systems required to mitigate the consequences of an accident as described in the FSAR.
DCP	1,2,3 FJ-SB-062	This DCP replaces plant protection digital voltmeter (DVM) system from Datel to IMC and adds wires between DVM and EXT DVM jacks in PPS cabinets.	This DCP did not introduce an unreviewed safety question. The new DVM has been qualified, including seismic testing in accordance with IEEE344-1975. The new DVM fits in the existing panel cut out for the originally furnished DVM. The Technical Specification Section 3/4.3.1 and Section 3/4.3.2 have set the limiting condition for operation for Reactor Protective Instrumentation and Engineered Safety Features Actuation System Instrumentation respectively. The DCP does not affect any of the above conditions.
DCP	1,2,3 FJ-SD-023	This change will provide analog valve position indication to the ERFDADS system from the steam bypass control valves, economizer and downcomer feedwater control valves. The addition of these points on the ERFDADS cabinet will provide for the analysis of the plant response to off-normal occurrences which lead to reactor trips.	This DCP did not introduce an unreviewed safety question. No safety system or component has been altered. The design basis has not been altered for ERFDADS. No equipment or system used to mitigate the consequences of an accident has been altered.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	1,2,3 FJ-SF-026	This DCP will provide the addition of steam bypass control valve (SBCV) position indications on main control board (MCB) and emergency response facilities data acquisition and display system (ERFDADS). During operations, the position of the SBCVs (8 per unit) is only indicated by position status lights (open or close) on the MCB. The status lights give no indication of actual valve position (i.e., between open and close) in that an operator using the system is unable to track the valve position. Under normal operation, the system is in automatic mode and does not require analog valve position indication. There will be a total of eight (8) position indication loops (one for each SBCV) which will be added as part of this modification.	This DCP did not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. The new position indications and associated hardware will not, in any way, affect the operations of the existing SBCVs, and will, in no way, introduce any new failure mechanisms that could adversely affect plant safety-related equipment. SBCVs are "Fail Close" and remain closed during normal plant operation. The addition of the instrumentation for the SBCV position indication on MCB will not impact the failure mode of the valve. Also, the failure of any components in the loop will not cause an inadvertent opening of the valve. None of the components (NQR and QAG) added by this change are connected to any safety-related components.
DCP	1,2,3 FM-ZF-029	This change will add roller restraints to the Cask Handling Crane (MZFNG01) trolley. These restraints will restrict axial motion of the crane's drain on its shaft.	This DCP did not introduce an unreviewed safety question. The cask handling crane is not referenced in the technical specifications except indirectly by limiting heavy loads over the spent fuel pool. This DCP will not affect the safety interlocks on the crane which preclude heavy loads from being lifted over the fuel pool. The addition of hoist roller restraints used to keep the hoist centered on its shaft will not increase any accident probabilities.
DCP	1,2,3 OE-SQ-049	The proposed change will provide an isolated grounding system for the Radiation Monitoring System in order to reduce false alarms and erroneous readings. This change is not described in the FSAR, will not modify procedures described in the FSAR and will not add tests or experiments not described in the FSAR.	This DCP did not introduce an unreviewed safety question. This change will provide the removal of all present grounding ties to plant ground and install an isolated ground system back to plant grounding mat, per Kaman's recommendations. This feature is not described in the FSAR and will not affect the safe operation of the plant. Tech Spec is not involved.
DCP	1,2,3 OM-CH-232	This change will add a nitrogen bottle, tubing and controls in each charging pump room.	This DCP did not introduce an unreviewed safety question. Technical Specifications 3/4.1 and 3/4.9 are adequate to ensure safe operation of the charging system. This change does not affect the basis for these Technical Specifications. None of the accidents analyzed in Section 6 and 15 of the FSAR are initiated by the charging system. This modification does not alter the function of the charging system.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	1,2,3 PC-FB-002	This DCP will install a new door at the entrance of the Control Room airlock at the 140' elevation in the Control Building. This modification will upgrade bullet resistant fire door J-319 replacing the existing door with a similar design that will satisfy all of the design criteria for the barrier.	This DCP did not introduce an unreviewed safety question. The fire rating and Security requirements for the barrier do not change the design basis. These doors are considered a passive component of the fire protection system. The new design will maintain the integrity of the barrier, be consistent with requirements of the UFSAR, and other applicable Codes; and section 3/4.7.7 of the Technical Specifications. (SARCN 3375).
DCP	1,2,3 PC-ZR-074	The Radwaste Building High Level Storage Area (HLSA) is accessible by climbing over a 7 foot high concrete shield wall. The concrete shield wall is ineffective in controlling access to the HLSA. Therefore, additional barriers are installed on the top of the shield wall to block the unauthorized entry into the HLSA. These barriers will not interfere with the operation of overhead cranes.	This DCP did not introduce an unreviewed safety question. This change does not affect any mechanical, electrical, or instrument and control systems. Installation of the barriers will be completed as a NQR installation will not interact with any existing operating system, and will not increase the probability of an accident previously evaluated. Accident scenarios described in the UFSAR are not affected or increased by this change due to the fact that this change does not affect any mechanical, electrical, or instrument and control systems. The structural steel for the installation of barriers will be designed and erected in accordance with seismic Category III requirements. The barriers will not interact with any operating system, nor will it create the possibility of an accident of a different type than previously evaluated and will not cause the release of radioactivity outside the building in the seismic event.
DCP	1,2,3 PJ-LR-115	This DCP will replace ultrasonic based concentrate monitoring tank level instrumentation with microwave based, level monitoring system. The change involves replacement of the concentrate monitoring tank LRN-T03A/B level instrumentation. It will replace the entire instrument loop from the field installed level sensors to the level indicators in the radwaste control room.	This DCP did not introduce an unreviewed safety question. The LRS system is not required to mitigate any Chapter 15 event and does not reduce the effectiveness of the mitigating systems. It also does not interfere with the safety related equipment performance and does not increase the consequences of an accident previously evaluated. This change is confined to the LRS system only. The change does not introduce system design parameters or configuration not previously anticipated, since it maintains ability to monitor level in the concentrate monitoring tanks. Therefore, unanticipated failure mechanisms are not introduced.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	1,2,3 PJ-SQ-001	The intent of this DCP is to replace the function of the existing in-line primary coolant process radiation monitor of the letdown line with the function of an ion chamber installed adjacent to the sample line. The bypass U tube that will be installed in the sample line and ion chamber will form a virtual process radiation monitor.	This DCP does not introduce an unreviewed safety question. The consequences of an accident previously evaluated will not be increased. No credit is taken to mitigate the consequences of the studied events by using the information obtained through trending the reactor coolant activity. Early detection of any fuel cladding fracture will not prevent or reduce the occurrence probability of any of the studies events relevant to PVNGS. Reconfiguring the sample line will not impede the function of any safety-related system or component.
DCP	1,2,3 PM-IA-067	The change involves ducting the inlet air to the service/breathing air compressor from outside the Turbine Building. This change will prevent contaminants within the Turbine Building, such as from the nearby ammonia and hydrazine tanks, from entering the compressor air inlet. Since the compressor is inside the Turbine Building, a 35-foot run of 14-inch diameter duct will be installed from the compressor to the west wall of the Turbine Building.	This DCP did not introduce an unreviewed safety question. The service/breathing air compressor performs no safety function and is a NQR piece of equipment. The compressor is connected to the containment building service air penetration and valving, which is important to safety, however, the compressor does not affect the operation nor the isolation function of the containment penetration valving. Total loss of service air will not prevent operation of the fire sprinkler systems.
DCP	1,2,3 XE-PK-037	Replace the Exide station batteries with AT&T round cell batteries. The station batteries have been experiencing early failures due to electrolyte seepage up to the terminal post area and have a life of approximately 15 years. Replace the batteries with the AT&T round cell battery with 40 year qualified life for better reliability.	This DCP did not introduce an unreviewed safety question. Pre-operation testing, in accordance with UFSAR section 8.3.2.1.2.3 and IEEE 450, ensures that the AT&T batteries comply with the DC system minimum design basis requirements. The battery replacement provides enhanced availability and performance.
DCP	1,2,3 XE-SG-163	This DCP relocates the 125 VDC control power feeds associated with the MSIV/FWIV logic panels from 125 VDC distribution panels directly to the MCC's battery input bus. Circuit/cable protection is provided by a 20 amp fuse located in the MCC. To allow for battery maintenance (battery disconnected from the bus) a backup feed is provided from the MCC buses through a normally open 20 amp circuit breaker. The purpose of this change is to reduce the probability of valve closures due to a loss of 125 VDC distribution panel buses.	This DCP did not introduce an unreviewed safety question. The failure modes of the existing cables, circuit breakers and cabling are the same as the relocated cabling, added fuses and added circuit breakers. UFSAR Section 15.2.4 envelopes the consequences which could be affected by relocating the control power. Review of the Technical Specification, Section 3/4.7. and 3/4.8.2 bases found no impacts on the margin of safety relating to the changes performed in this DCP. (UFSAR 3395)







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	1,2,3 XJ-SI-192	This change will replace the motor operator for safety injection shutdown CLG temperature control valves J-SIA-HV-657 and J-SIB-HV-658. The purpose of this DCP is to implement the modification of SDCHX (shutdown cooling heat exchanger) throttling valves 1,2,3- J-SIA-HV-657 and 1,2,3 -J-SIB-HV-658. The modification replaces the existing motor operated valve actuators with similar actuators having higher torque capabilities. The new actuator assembly will provide a higher torque output and allow the valve to stroke against maximum process conditions without tripping. In addition, the ASME Section XI stroke time requirement is being changed from 30 seconds to 100 seconds to facilitate better throttling control. The replacement motor operator, with higher torque capacities, will provide more reliable valve operation without affecting the basic operation of the system. The changes made by this DCP will allow more reliable operation of the SDCHX throttling valves J-SIA-HV-657 and J-SIB-HV-658 without negatively affecting the system operation in any way. The existing power system is capable of handling the increased power requirement, and the thermal overload heaters are being changed to meet the new load requirements. The other loads on the 480V MCC bus are not affected. The valve and piping system materials/design can meet the additional loads from new actuator assembly.	This DCP did not introduce an unreviewed safety question. The subject change does not increase any existing failure mechanisms probability or consequences, or create any new failure mechanism precursors, and will not increase the probability or consequences of an accident previously evaluated. The subject change does not negatively impact the safety function of the SDCHX throttling valves, does not affect the operation of any other safety related equipment, and will not create any new failure mechanisms.
DCP	1,3 FJ-HD-014	This modification replaces the existing diesel oil day tank room vent fan flow switch with a different manufacturer/model and relocates it from the underside of the duct to the top side to avoid damage from maintenance and traffic.	This DCP did not introduce an unreviewed safety question. No accident analyses in the FSAR involve air flow into or out of the diesel oil day tank room. The duct is non-safety related and not "important-to-safety." System function is unchanged by replacement and relocation of the flow switch and there is no impact on surrounding systems or equipment.
DCP	1,3 FJ-SB-064	This DCP will install the Diverse Auxiliary Feedwater Actuating System (DAFAS) to provide a diverse means to initiate the Auxiliary Feedwater System in accordance with the ATWS Rule, 10CFR50.62. This change provides diversity between the existing Plant Protection System (PPS), Engineered Safety Features Actuation System (ESFAS), Auxiliary Feedwater Actuation System (AFAS), and Reactor Protection System (RPS). The purpose of the diversity is to minimize the potential for a common mode failure disabling both AFAS and RPS. The DAFAS provides the necessary ATWS mitigation circuitry should the PPS, ESFAS, or AFAS fail to actuate Auxiliary Feedwater during conditions indicative of an ATWS event.	This DCP did not introduce an unreviewed safety question. The change will not increase the probability for an accident previously evaluated. It could be argued that the addition of DAFAS may increase the probability of an inadvertent actuation of Auxiliary Feedwater. However, the DAFAS is designed with features to minimize inadvertent actuations and challenges to the safety systems. The number of system interlocks incorporated in the design of DAFAS has provided sufficient protection from inadvertent actuation. The NRC SER has concluded that the DAFAS design is acceptable. The change does not increase the probability for a malfunction of equipment important to safety.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	1,3 FJ-SF-027	This change replaces the existing Undervoltage (UV) and Auxiliary Relays in the CEDMCS cabinets for Units 1, 2, and 3. The output relays are insufficiently sized to carry the current required to operate the turbine trip relays. Some of the output relays have been found chattering. The UV relays have a fixed setpoint of 216VAC phase-to-phase. The relay setpoint has a tendency to drift high which may result in premature actuation of turbine trip. 24VDC Auxiliary Feed Relays are replaced with one GE-type HFA multi-contact 240VAC relay. The PC Board, rectifiers, resistors, diodes, etc. located on the existing UV detector assembly are removed. 240V, 3-phase UV relay is replaced with General Electric Model ICR54B, 240V, 3-phase relay.	This DCP did not introduce an unreviewed safety question. CEDMCS changes provide proper sized relay contacts and resolve the relay chattering problem. The new UV relays will not encounter premature actuation. These changes do not create any new failure mechanisms. The equipment changes do not degrade the ability of the ESF System to shut down the plant during design basis accident. The UV Relays and Auxiliary Relays of this System are not explicitly referred to in the Technical Specifications or the associated bases sections. The changes have been incorporated in the DCP to meet the design requirements.
DCP	1,3 FJ-SG-160	This change will replace the closed position indication switches and solenoid housing in all Valcor process solenoid valves with higher sensitivity.	This DCP did not introduce an unreviewed safety question. There are no changes to the Main Steam System. This modification is a like-for-like component changeout. It does not change the function of the valve or the effects of the valve on the system. This modification does not change the function of the valve nor the operation requirements.
DCP	1,3 FJ-SV-014	This DCP replaces the two obsolete magnetic tape recorders with a 16-channel recording and analysis computer, i.e., Loose Parts Events Analysis Computer (LPEAC) manufactured by Combustion Engineering. This computer will monitor loose parts. This change provides a mechanism which enhances the existing system for monitoring. The change will reduce the system down time by replacing the existing recorder system with a new computer analysis system, which will provide operations important information as to the location and size of a loose part and the capability to provide an on-line analysis of the data.	This DCP does not introduce an unreviewed safety question. This analysis computer is NQR. The Loose Parts & Vibration Monitoring System is comprised of subsystems that are both quality and NQR. This modification does not change the operation of the RCPs or its automatic vibration monitoring system but provides a greater indepth data collection capacity and analysis. This change will not increase the probability of an accident previously evaluated. This does not affect the margin of safety in Technical Specifications.
DCP	1,3 PE-ZC-194	The design modification of the Containment Personnel Airlocks to enhance the fault current protection provisions of the electrical system. This is being done to better ensure the integrity airlock package electrical circuits.	This DCP did not introduce an unreviewed safety question. Any failure of the fuses blocks or the fuses therein contained cannot impact the ability to use the airlock for entry or exit (as demonstrated by the fact the airlocks remain currently in use with no power) and the maintenance of the containment pressure boundary. A short circuit at the block if upstream of the ECSA does not overload said ECSA, and short circuit downstream at the block has fault current restrained by the inboard airlock load such that the ECSA is not overloaded.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	1,3 PJ-SQ-065	This DCP provides a functional separation of the Condenser Exhaust High Range High (HRH) and High Range Normal (HRN) Effluent Radiation Monitors by rerouting the condenser exhaust to the Plant Vent, removing Monitor 142, and converting Monitor 141 to in-duct. The Condenser Air Removal System (CARS) effluent will no longer be vented separately but will be combined with the plant vent effluent.	This DCP does not introduce an unreviewed safety question. The consequences of a malfunction of equipment important to safety will not be increased. The possibility of an accident of a different type than previously evaluated will not be created because the new piping will present no different kind of threat than the previous piping. The piping is simply extended on the same floor and creates no potential hazard. The margin of safety as stated in Technical Specifications is not reduced.
DCP	1,3 PJ-SQ-066	This DCP concerns modifications to the effluent radiation monitors in the plant vent. The modifications are associated with changes within the high range instrument skid and its sample interconnection with the low range skid. These changes provide for the high range monitor to operate independently of the low range monitor.	This DCP does introduce an unreviewed safety question. The overall effect of this change increases the reliability of the radiation monitors by reducing the amount of time the monitors are not in operation thus reducing the probability of their failure. The radiation monitors themselves are not accident initiators and have no bearing on accident type. Failure of these monitors remains within the bounds of previously evaluated accidents.
DCP	1,3 PM-NC-041	This DCP adds piping, a butterfly and drain valve, redundant safety relief valves, upgraded motors and gear sets to existing containment isolation valves, and a new temperature scale on control panel B04A. This change is intended to mitigate the effect of a RCP High Pressure Seal Cooler tube rupture, thereby preventing an unacceptable release of radioactivity to the atmosphere. However, complete isolation of the event will not be possible without the ability to close the RCP HPSC inlet/outlet isolation valves. The contaminated nuclear cooling water will be released to containment via safety relief valves with the results bounded by a LOCA event.	This DCP does not introduce an unreviewed safety question. The consequences of an accident previously evaluated will not be increased. The safety grade equipment involved with the design modification are the NC containment isolation valves and the new safety relief valves. This change upgrades the motor of the NC containment isolation valve operators, thereby ensuring that these valves will close against the anticipated pressure differential caused by the primary fluid pressure influx after an HPSC tube rupture event. Therefore, the probability and consequences of a malfunction are not increased. The consequences of an accident previously evaluated will not be increased. The margin of safety as defined in Technical Specifications will not be reduced.
DCP	1,3 PM-RC-178	Two additional handholes will be added to each steam generator to facilitate loose part removal, tube bundle inspections and sludge lancing. This modification is being performed under the ASME Boiler and Pressure Vessel Code, Section XI 1980 Edition through Winter 1981 Addenda for Class 2 Vessels.	This DCP did not introduce an unreviewed safety question. This modification is designed and fabricated to equal or better design criteria and standards than the original components, specifically the ASME B&PV Code, Section III, Division 1, class 2, 1971 Edition through Winter 1973 Addenda. Handholds are passive components which do not alter the response of the NSSS or secondary systems during any mode of operation.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	1,3 XM-CM-027	This DCP will repair condensate demineralizer high TDS sump (replacing stainless steel liner with appropriate concrete coating material), and associated acid day tank drain line and drain header, to preclude future concrete and acid drain line corrosion damage.	This DCP does not introduce an unreviewed safety question. This change does not increase the probability of an accident previously evaluated. This change does not impact/involve any safety related equipment. This change will improve the reliability of the SC and CM systems by reducing the susceptibility of corrosion of the high TDS sump and associated piping. The margin of safety as stated in Technical Specifications is not reduced.
DCP	2 PE-AF-095	This 50.59 evaluation reviews the Implementation Plan (IP) for DCP 2-PE-AF-095 only. A separate 50.59 evaluation reviewing the physical changes to be installed by DCP 2-PE-AF-095 has been completed. The DCP installs a backup 125 VDC control power source from channel "A" battery charger E-PKA-H11 located in the "A" train DC Equipment Room on the 100 ft. elevation of the Control Building to the "N" train Auxiliary Feedwater pump supply breaker E-PBA-S03S, located in the "A" train Essential Switchgear Room on the 100 ft. elevation of the Control Building via three position transfer switch E-PBA-U01.	This DCP did not introduce an unreviewed safety question. Implementation of this DCP does not jeopardize the integrity or operability of safe shutdown equipment nor that required to maintain operability of the unit. There are no previously analyzed accidents that depend on the Non-Essential Auxiliary Feedwater train to preclude or mitigate the accident. Implementation of DCP 2-PE-AF-095 will not create a hazard and/or adversely affect any equipment important to safety.
DCP	2,3 PM-RC-179	This DCP changes four Inconel 600 pressurizer nozzles that have been evaluated to have high susceptibility to Primary Water Stress Corrosion Cracking (PWSCC) with a design incorporating a more PWSCC resistant material, Inconel 690.	This DCP did not introduce an unreviewed safety question. The modification does not change the routing or locations of systems, structures, or components. The nozzle and piping design uses equivalent design codes, material requirements, design pressure, design temperature, seismic criteria, insulation, and routing as the original design. Analyses have been performed to demonstrate the structural integrity of the replacement nozzles. An ASME Code reconciliation per IWA-7200 has been performed to document the code acceptability replacement to the original design code 1971 Edition, Winter 1973 Addenda. This modification does not alter the response of the NSSS during any events described in the UFSAR. This modification is designed and fabricated to equal or better design criteria and standards than the original components.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	3 FM-SI-179	This DCP deletes snubbers and modifies pipe supports in the Containment Building due to implementation of the snubber reduction program and inclusion of water hammer analysis of the Containment Spray System. Modification performed for this DCP consists only of enlarging existing welds, and providing additional stiffener plates. This type of modification strengthens the existing support configuration having no adverse effect on the existing design. Note no hardware components such as struts or snubbers were added or deleted.	This DCP did not introduce an unreviewed safety question. The partial implementation of this DCP, since it only increased weld size or length and added additional stiffener plates without removal of any snubbers or insertion of any struts, does not increase the stress level consequently meeting allowable values per code and the probability of this partial implementation of the DCP does not increase the probability of occurrence nor the consequences of an accident previously evaluated. The piping system with the partial implementation of the DCP meets all design and allowable stress values.
DCP	AFCR 92-0016	This modification installs a new Public Address (PA) System within the remodeled South Annex (Training Center) that will work as an extension of the plant PA system.	This DCP did not introduce an unreviewed safety question. The change will reduce the likelihood that personnel in occupied plant areas will not be properly notified of plant emergencies. The new system will enhance the effectiveness of communications from the unit control rooms to the South Annex and thereby aid in reducing the consequences of accidents previously evaluated in the UFSAR.
DCP	AOC-ZY-213	This change adds a sidewalk along the plant north side of access road "B-2" from Unit 1 to Unit 3. Sidewalk installation will not affect equipment independent to safety.	This DCP did not introduce an unreviewed safety question. The Margin of Safety is not reduced or affected in any way due to the fact that a new sidewalk along the access road does not prohibit/inhibit plant operations.
DCP	APC-OW-025	The existing hypalon liner in evaporation pond #1 has deteriorated and due to wind and wave action has developed several leaks that have been repaired in the past. These continuous repairs of the hypalon liner are very expensive. The evaporation pond #1 is being upgraded by providing a soil cement armor on the inside slopes, install a leak detection system, and relining of the entire pond with High Density Polyethylene (HDPE) membrane.	This DCP did not introduce an unreviewed safety question. The low levels of licensed radioactive material possibly being present in evaporation pond #1 sludge will not pose any health hazard to the construction workers, and would be within the limits of 10CFR20, and all material would be restricted in a confined zone within the evaporation pond boundary. The exposure to the public will be within limits. The proposed change will increase dam stability. The evaporation pond design is basically the same as evaluated in the UFSAR. The existing pond is being strengthened by the installation of a soil cement armor and a HDPE lining system.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DCP	WDP-FC-118	Install the second phase of the Cooling Tower Blowdown Recovery System which consists of replacing the existing temporary above-ground Yelomine (PVC) and buried gray PVC pipe between the Blowdown Recovery Pump Station at the Evaporation Pond and the Water Reclamation Facility.	This DCP did not introduce an unreviewed safety question. Replace temporary piping with permanent piping and will have no impact on any accident previously evaluated in the UFSAR. The probability of evaporation pond leakage to the groundwater, as analyzed in sections 2.4.13.2 and 2.4.13.3 would not be affected by the scope of this modification. The Evaporation Ponds have an installed leak detection system that is unaffected by this change. The addition of the Cooling Tower Blowdown Recovery System, and the replacement of the temporary above-ground piping with permanent Drisco below grade piping does not increase or decrease the consequences of the pond liner failure event since the piping system can be isolated from the Evaporation Pond. (SEE SARCEN 3314)
DFWO	00605744	This DFWO provides the results of Eddy Current Testing of the Steam Generator tubes. The ECT identifies tubes that are degraded, defective, or tubes with imperfections as defined in Technical Specification 3/4.4.4. The total number of tubes plugged as a result of the repairs specified in this DFWO and in previous outages is 130 in SG 11 and 193 in SG 12. This is less than the 400 tubes per steam generator assumed in the safety analysis for the next operating cycle per Unit 1 Cycle 5 groundrules.	This DFWO did not introduce an unreviewed safety question. The effect of potential loose parts have been evaluated and do not represent a significant safety concern. The required safety factors specified in Regulatory Guide 1.121 had been maintained over the previous operating cycle and are expected to continue to be maintained over the next operating cycle. The probability of a SGTR is not increased. The plugs installed have been designed and analyzed to the same design conditions as the steam generator tubes themselves. The presence of potential loose parts on the outside of the tubes will not affect the heat removal capabilities of the steam generators.
DFWO	00605746	This DFWO provides the results of ECT testing of the steam generator tubes. The ECT identifies tubes that are degraded, defective, or tubes with imperfections as defined in Technical Specification 3/4.4.4. The total number of tubes plugged as a result of the repairs specified in this DFWO and in previous outages is 130 in SG 11 and 193 in SG 12. This is less than the 400 tubes per steam generator assumed in the safety analysis for the next operating cycle per Unit 1 Cycle 5 groundrules.	This DFWO did not introduce an unreviewed safety question. The effect of potential loose parts have been evaluated and do not represent a significant safety concern. The required safety factors specified in Reg Guide 1.121 had been maintained over the previous operating cycle and are expected to continue to be maintained over the next operating cycle. The probability of a SGTR is not increased. The plugs installed have been designed and analyzed to the same design conditions as the steam generator tubes themselves. The presence of potential loose parts on the outside of the tubes will not affect the heat removal capabilities of the steam generators. (Steam Generator 2)







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DFWO	00616115	This DFWO provides the results of ECT of the steam generator tubes. The ECT identifies tubes that are degraded, defective, or tubes with imperfections as defined in Technical Specification 3/4.4.4. The total number of tubes plugged as a result of the repairs specified in this DFWO and in previous outages is 130 in SG 11 and 193 in SG 12. This is less than the 400 tubes per steam generator assumed in the safety analysis for the next operating cycle per Unit 1 Cycle 5 groundrules.	This DFWO did not introduce an unreviewed safety question. The effect of potential loose parts have been evaluated and do not represent a significant safety concern. The required safety factors specified in Reg Guide 1.121 had been maintained over the previous operating cycle and are expected to continue to be maintained over the next operating cycle. The probability of a SGTR is not increased. The plugs installed have been designed and analyzed to the same design conditions as the steam generator tubes themselves. The presence of potential loose parts on the outside of the tubes will not affect the heat removal capabilities of the steam generators. (Steam Generator 2)
DFWO	00631866	This DFWO provides the results of ECT of the steam generator tubes. Specifically, three areas of concern are evaluated: 1) the effect of plugging tubes on steam generator performance, 2) the effect of potential loose parts, and 3) determination of whether the required safety factors against tube rupture as specified in Regulatory Guide 1.121 were maintained. Tube plugs and stakes (when necessary) will be installed in defective or degraded tubes identified during eddy current and supplementary inspections of the tubes.	The DFWO did not introduce an unreviewed safety question. The plugs to be installed, whether welded or mechanical have been designed and analyzed to the same design conditions as the steam generators themselves. The installation of the plugs will restore the integrity of the RCS pressure boundary. The total number of tubes plugged in each of the Unit 3 steam generators is less than the 400 plugged tubes per steam generator assumed in the safety analysis. The activities associated with this DFWO do not result or require a change Tech Spec 3/4.4.4. Compliance with RG 1.121 ensures the margin of safety is not reduced.
DFWO	00631867	This DFWO provides the results of Eddy Current testing (ECT) of the Steam Generator (SG) tubes. The ECT identifies tubes that are degraded, defective, or tubes with imperfections. Engineering evaluations of the ECT results are performed to identify which tubes need to be removed from service (i.e., plugged), evaluate any as-found conditions (e.g., potential loose parts that cannot be retrieved), and evaluate the effect of the on-going damage mechanisms on the continued safe operation of the steam generators. The total number of tubes plugged as a result of the repairs specified in this DFWO and in previous outages is 121 in SG 31 and 114 in SG 32. This is less than the 400 tubes per SG assumed in the safety analysis. The total number of tubes plugged in each of the Unit 3 SGs is less than the 400 plugged tubes per SG assumed in the safety analysis. (Plug hot leg side tubes in Unit SG 2.)	This DFWO does not introduce an unreviewed safety question. The probability of an SGTR is not increased. Tube plugs and stakes will be installed in defective or degraded tubes identified during Eddy Current and supplementary inspections of the tubes. The plugs to be installed, whether welded or mechanical have been designed and analyzed to the same design conditions as the steam generators. The installation of the plugs will restore the integrity of the RCS pressure boundary. Thus, the required safety margins have and will continue to be maintained, and therefore, the potential for a tube rupture due to corrosion of the tubes is not increased. The consequences of all accidents which require residual heat removal via the SGs are not increased. The SG is the only equipment important to safety affected by the activities. The activities associated with this DFWO do not result or require a change to Tech Specs.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DFWO	00631868	<p>This DFWO provides the results of Eddy Current testing (ECT) of the Steam Generator (SG) tubes. The ECT identifies tubes that are degraded, defective, or tubes with imperfections. Engineering evaluations of the ECT results are performed to identify which tubes need to be removed from service (i.e., plugged), evaluate any as-found conditions (e.g., potential loose parts that cannot be retrieved), and evaluate the effect of the on-going damage mechanisms on the continued safe operation of the steam generators. The total number of tubes plugged as a result of the repairs specified in this DFWO and in previous outages is 121 in SG 31 and 114 in SG 32. This is less than the 400 tubes per SG assumed in the safety analysis. The total number of tubes plugged in each of the Unit 3 SGs is less than the 400 plugged tubes per SG assumed in the safety analysis. (Plug hot leg side tubes in Unit 3 SG 1).</p>	<p>This DFWO does introduce an unreviewed safety question. The probability of an SGTR is not increased. Tube plugs and stakes will be installed in defective or degraded tubes identified during Eddy Current and supplementary inspections of the tubes. The plugs to be installed, whether welded or mechanical have been designed and analyzed to the same design conditions as the steam generators. The installation of the plugs will restore the integrity of the RCS pressure boundary. Thus, the required safety margins have and will continue to be maintained, and therefore, the potential for a tube rupture due to corrosion of the tubes is not increased. The consequences of all accidents which require residual heat removal via the SGs are not increased. The SG is the only equipment important to safety affected by the activities. The activities associated with this DFWO do not result or require a change to Tech Specs.</p>
DFWO	00631869	<p>This DFWO provides the results of Eddy Current testing (ECT) of the Steam Generator (SG) tubes. The ECT identifies tubes that are degraded, defective, or tubes with imperfections. Engineering evaluations of the ECT results are performed to identify which tubes need to be removed from service (i.e., plugged), evaluate any as-found conditions (e.g., potential loose parts that cannot be retrieved), and evaluate the effect of the on-going damage mechanisms on the continued safe operation of the steam generators. The total number of tubes plugged as a result of the repairs specified in this DFWO and in previous outages is 121 in SG 31 and 114 in SG 32. This is less than the 400 tubes per SG assumed in the safety analysis. The total number of tubes plugged in each of the Unit 3 SGs is less than the 400 plugged tubes per SG assumed in the safety analysis. (Plug hot leg side tubes in Unit 3 SG 1).</p>	<p>This DFWO does introduce an unreviewed safety question. The probability of an SGTR is not increased. Tube plugs and stakes will be installed in defective or degraded tubes identified during Eddy Current and supplementary inspections of the tubes. The plugs to be installed, whether welded or mechanical have been designed and analyzed to the same design conditions as the steam generators. The installation of the plugs will restore the integrity of the RCS pressure boundary. Thus, the required safety margins have and will continue to be maintained, and therefore, the potential for a tube rupture due to corrosion of the tubes is not increased. The consequences of all accidents which require residual heat removal via the SGs are not increased. The SG is the only equipment important to safety affected by the activities. The activities associated with this DGWO do not result or require a change to Tech Specs.</p>







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
DFWO	00641217	This DFWO evaluates the effects of leaving a known suspected leaking tube plug as-is until the next refueling outage (a period of approximately four months). During Cycle 4 operation, a small (0.1 to 0.86 (max) gal/day) primary to secondary leak in SG 32 had been observed and trended. The PVNGS technical specifications permit a total of 1 gpm primary to secondary leakage through both steam generators and 720 gpd through any one SG.	This DFWO did not introduce an unreviewed safety question. The observed leakage was well below the Tech Spec limits. Welded plug at tube location R1/C182 exhibited evidence of boric acid residue with a wet appearance. No dripping was identified. The plug is not considered susceptible to PWSCC. Catastrophic failure, such as the plug top release events associated with alloy 600 mechanical plugs or plug ejection are considered to be unlikely. Plug leaks have been easily trended via secondary chemistry sampling and radiation monitoring. An increasing leak would be detected via current leak detection methodologies.
EER	88-ZY-041	This EER will allow the use of the "StarTrack" railroad crossing system in lieu of using railroad ties and asphalt, for railroad crossing repairs, which is the original installation design. This change is a proven effective system which has been approved for use on industrial spur tracks of the Southern Pacific Transportation Company. The railroad crossing "alternate design" will be installed at crossings which are located outside of the power block area, and is not associated with any equipment which is important to safety.	This EER did not introduce an unreviewed safety question. Accident scenarios are not affected or increased by this change. The railroad crossing design and installation is independent from any structure or system which is important to safety or necessary for safe shutdown of the plant. There is no possibility of an accident or malfunction of a different type than previously evaluated. This installation does not affect any of the previously defined safety margins or systems that control those safety margins.
EER	89-ZC-125	Allow Valspar 76 series in lieu of 78 series epoxy on the Multiple Stud Tensioner because it has been successfully Design Basis Accident tested over Mobil/Valspar 78 series epoxy and 13-D-105-M00 inorganic zinc.	This EER did not introduce an unreviewed safety question. This protective coating does not increase the probability or consequences of an equipment malfunction important to safety because the surface preparation, application, and generic type remain the same. Additionally, portable air filtration system will be used to remove the solvents vapors. This alternate material will not create a different accident or malfunctioning type than previously evaluated because both materials degrade the charcoal filters the same way.







DOC TYPE	DOCUMENT NUMBER	DESCRIPTION	SUMMARY
EER	89-ZY-003	Delete the restriction to the storage of radioactive material or low-level waste in the radiologically controlled plant yards while awaiting processing, shipment, or use.	This EER did not introduce an unreviewed safety question. Radiation protection measures are taken by radiation protection staff to assure compliance with 10CFR20 and to be consistent with the recommendation of NRC Regulatory Guide 8.8. Materials stored in the plant yard will not increase the probability of the RWT rupturing. Also, materials stored in the plant yard will not be connected to any safety related systems or components. The quantity of radioactive material contained in each outside temporary tank and the reactor makeup water tank shall be limited to less than or equal to 60 curies. (SARCN 3293)
EER	89-ZY-022	This EER proposes to install a two foot high fine mesh screen to the RCA fence. The RCA fence still remains as NQR and is unaffected by the addition of the screen. The purpose the screen is to prevent small debris from being blown into the RCA. The weight of the screen is 0.5 lb/ft and will not impose any structural loads on the RCA fence significant enough to cause a collapse of the fence.	This EER did not introduce an unreviewed safety question. Adding a screen to the RCA's fence, an NQR structure, will not involve any safety-related equipment. Therefore, the probability and consequences of a malfunction of equipment important to safety will not be increased. The insignificant mass of this screen will not cause the RCA fence to collapse and therefore will not affect the margin of safety of any other structures/components and will directly or indirectly increasing the probability and/or consequences of accident previously evaluated.
EER	90-MA-003	Upgrade Isophase bus cooler (1MCENAOIA/B, 2MCENAOIA/B) backdraft dampers from Ruskin Model BD2/A2 to Ruskin Model CAD2 dampers. The Isophase bus cooling unit backdraft dampers will be replaced with a heavy duty model.	This EER did not introduce an unreviewed safety question. The Isophase bus cooling unit is not an essential safety system and is not required for safe reactor shutdown. Two 100% capacity redundant blowers and two 100% capacity redundant coolers are provided. Therefore, the consequences of an accident previously evaluated will not be increased. The Isophase bus cooling unit is not safety related and is not required for safe reactor shutdown, thus the probability of a malfunction of equipment important to safety will not be increased.
EER	90-RZ-004	The proposed changes involve rewiring and retagging cable conductors within the existing non-safety related panels of post accident sampling system. The rewiring will provide fuse protection to electronic indicating devices located inside these panels. The retagging cable conductors does not require any cable retermination. The change does not change/affect system operation/response of the original system requirements and does not introduce any new part/component to the existing circuit.	This EER did not introduce an unreviewed safety question. The change provides electrical circuit protection to the existing non-safety related components. Failure of these components will be isolated and this will prevent other circuit components from failure. The change increases the existing non-safety related system operation reliability and does not increase the consequences of an accident previously evaluated. The change does not increase the probability of a malfunction of equipment important to safety.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
EER	90-ZY-097	Adds an Asphalt Road and Walkway to provide access to the Unit 3 Operations Support Building.	This EER did not introduce an unreviewed safety question. This modification does not increase the consequences of an accident previously evaluated. The form, fit and function of the facility has been maintained and the modification does not adversely affect the ability of Quality Related structures to perform their Safety Related or Important to Safety function. This modification does not increase the probability of a malfunction of equipment important to safety because the disposition of the subject EER shows that the Design Equivalent Change maintains the design requirements for the facility.
EER	93-CH-008	Startup strainer 13MCHNF29 (including valve 13PCNHVX050) is being replaced with a spool piece. The startup strainer is a temporary strainer used during the flushing program. After flushing, the decision was made to leave the strainer in although it was not required. The spool piece to be installed meets all the requirements of ANSI B31.1 and is fabricated from materials in accordance with Piping and Material Classification Drawing 13P-ZZG-012 piping class HCDA.	This EER did not introduce an unreviewed safety question. The worst case accident for dose release to the public from an outside storage tank is a failure of the Refueling Water Tank RWT. All other outside storage accidents are bounded by this analysis including any failure associated with the spool piece. The startup strainer and its flushing valve have more potential failure modes than the replacement spool piece.
EER	93-DG-023	This change further clarifies what is an acceptable replacement control valve for the DG combustion air temperature control valves J-DGN-TV-265, 266, 267, and 268. These valves sense the intercooler air temperature and regulate the flow of heated jacket water to warm the incoming combustion air. EER #91-DG-021 correctly specifies an acceptable replacement control valve but incorrectly calls for the valve to be set at 105 degrees F. The replacement valve can not be set at 105 degrees. The valve is instead designed to be set around 100 degrees F.	This EER did not introduce an unreviewed safety question. The regulated temperature is still greater than the minimum temperature required by the manufacturer. This change does not alter the way in which the on-site standby power system functions as described in UFSAR Chapter 8. The Technical Specifications do not place any requirements on the temperature of the combustion air to the DG's.
EER	93-FP-005	This EER provides the flexibility of an additional tap into the fire main which will allow the sensing line to remain operable when maintenance is performed on the eight isolation valves which presently require the isolation of the sensing line from the fire main.	This EER did not introduce an unreviewed safety question. The intent of this design equivalent change is to enhance the availability of the pressure sensing line and, as a direct result, enhance the availability of the fire pumps. This change enhances the availability of the auto-start capability for the fire pumps.
EER	93-FP-023	This design equivalent change EER upgrades door G202 and its associated barrier to Appendix R 3-hour. This is in response to CRDR 9-2-0107 which identified Train A and B cables located in the center staircase of the Diesel Generator Building (Fire Area V). This design equivalent change EER replaces a currently non-credited (NQR) 1.5 hour door with a credited 3-hour rated (QAG) fire door.	This EER did not introduce an unreviewed safety question. There is no combustible loading in the stairwell. This change brings the plant into compliance with 10CFR50, Appendix R, Section IIIG. The physical configuration remains the same. The 3-hour door will be the same form, fit and function as the existing door. Plant safety will be enhanced as a result of this change.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
EER	93-FP-027	This EER is a DESIGN EQUIVALENT CHANGE for changes in Quality Classification and fire rating of fire doors and associated fire barriers based on their actual function relative to the Fire Hazards Analysis does not require any new procedures, nor will it impact existing procedures.	This EER did not introduce an unreviewed safety question. The change does not mandate the introduction of any new combustibles or ignition sources into the units. The change ensures that door openings in rated fire barriers are protected with fire doors with a fire resistance rating commensurate with the rating of the barrier. Fire protection limiting conditions of operation, action statements, and surveillance requirements are no longer part of the Technical Specifications (since 1987). Even if fire protection requirements were still contained in the technical specifications, there would be no reduction in the margin of safety as defined in the basis for any former technical specification since this change does not revise the compensatory measures which are required (per the implementing procedures).
EER	93-HJ-002	Replace Control Room HVAC damper solenoid valves with new solenoid valves to meet requirement of 125 psi minimum. The new solenoid valve will cause the closure stroke time to increase to approximately 50-60 seconds.	This EER did not introduce an unreviewed safety question. The delay in isolation of control room normal HVAC air flow does not affect performance of any of the system required for safe shutdown. The accumulative 30 day thyroid dose to control room operators would increase by 5.5 percent for a LOCA event and changes to the whole body dose is negligible. This is a very conservative estimate of the dose. The final calculated thyroid dose for the control room operators is estimated to be 9.22 rem. This value is well within the 10CFR50 Appendix A, GDC 19 guidelines (30 rem).
EER	93-MT-011	This EER provides a one time two month exemption from Unit 1 CV-1 testing (from July 1993 to September 1993). CV-1 is regulating steam flow correctly, therefore, testing is only assuring the valves ability to go to a full close position. The valve is currently going slowly closed due to the downpowering. This exemption is sought because of the trip risks associated with K5 relay replacement. The relay will be replaced just prior to entering or during the next refueling outage.	This EER did not introduce an unreviewed safety question. Failure of a control valve to close is not an initiating event to any accident analysis. Failure to modulate the turbine control valves and failure to trip the turbine are not the limiting failures in any accident analysis, failure to close would not result in an increase in dose (consequences) from any accident above that previously reviewed and approved by the NRC. Therefore, the failure to trip the turbine (which would require the failure of both a control valve and stop valve) would not increase the consequences of an accident previously evaluated in the UFSAR. There are no margins of safety as defined in the basis for any Technical Specification pertaining to control valves.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
EER	93-RF-001	Replace 5 ton cask handling monorail hoist to 7 1/2 ton capacity. The hoist/trolley assembly, used to transfer crud filters in their protective casks from Auxiliary Building to the Radwaste building, is operating at its full rated 5-tons capacity throughout its entire range during its required tasks. Constant use, at maximum loads, has prematurely worn hoist/trolley components, creating the need of excessive maintenance and thus reduced operator confidence in hoist reliability and safety. Replacing the hoist common with hoists designed and rated for 7 1/2-tons capacity and marked 5-tons capacity is recommended. The 7 1/2-tons capacity hoist system will maintain the original function of the 5-tons capacity hoist/trolley system.	This EER does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. This action will have no adverse affect upon any of the quality related structures, systems, or components. Therefore, the probability of a malfunction of equipment important to safety will not be increased due to this action.
EER	93-SS-001	Removing lead shots placed in PASS RGS unit around V76 for plant betterment.	This EER does not introduce an unreviewed safety question. Removal of the lead shots does not interfere with the operation of any safety-related equipment necessary for safe shutdown. The functions carried out by the sampling line are not related to any safe shutdown system.
EER	93-ZC-023	During refueling outages, the containment building polar crane is used to lift the 200 ton Reactor Vessel Closure Head (RVCH) off of the Reactor Vessel and to remove the Upper Guide Structure (UGS) from the reactor and move this 125 ton load to the UGS pit. During these heavy lifts, there are only 2 hoisting speeds that can be utilized; "microspeed" of 3 inches per minute or normal lifting speed of 5.5 feet per minute. However, the UFSAR (4.2.5.P.1.a) states that ".... A hoisting speed of 6 inches per minute or less shall be utilized during refueling operations...." During these 2 heavy lifts, Maintenance personnel are required to be in close proximity to either the RVCH or the UGS to act as spotters, and control the taglines. An ALARA concern has been raised with this scenario. Local radiation levels increase dramatically during these lifts as either the UGS is exposed dry as the RVCH is lifted to its stand, or as the UGS is raised close to the top of the water of the Refueling Pool. UFSAR 4.2.5.P.1.c statement that ".... A low inching speed is required during those portions of the lift when close tolerance surfaces are engaging each other...." should be revised to state: ".... A low inching speed of 6 inches per minute or less is required during those portions of the lift when close tolerance surfaces are engaging each other...." The microspeed of 3 inches per minute must be used when the bottom of the RVCH is within a foot of the Reactor Vessel.	This EER did not introduce an unreviewed safety question. The Evaluation of the Reactor Head Drop for the CE System 80 CESSAR NSSS is outlined in the NRC Questions on the CESSAR, Chapter 9, page 9-7, Question #6. The results of this evaluation show that "An evaluation of the reactor head drop...demonstrates that neither the Reactor Vessel Head nor the Upper Guide Structure develop critical loads in the system...." The evaluation includes various drop configuration such as a flat head drop, an off-angle head drop, a large angle head drop, and a flat head drop with a larger mass. All these analyses come to the conclusion that none of these scenarios "develop critical loads in the system." Polar crane speed has no impact on Technical Specification Table 3.8-2 as there is no change to the power source for the crane. There is no other reference to the polar crane in any Limiting Condition of Operation (LCO) or Surveillance Requirement.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
LDCP	13LC-CH-259	This LDCP deletes mechanical snubbers 01 & 02-CH-005-H-006 & 010 on the CH System charging piping inside the Containment Building. Technical Specification and Bases Section 3/4.7.9 (Snubbers) does not mention actual scope or population of snubbers in the plan. Calculations show that the stresses in the piping system, and the loads on supports and the structural steel are within the allowables set forth in the General Design Criteria Section 3.6.5.4 and Table 1E-2, the ASME Code Section NC-3600 and the PVNGS UFSAR Tables 3.9-10 and 3.9-11.	This LDCP did not introduce an unreviewed safety question. The design limits established in Technical Specification Section 3/4.4.9 are not affected. Adequate redesign of support systems will not affect the operability of the system. The margin of safety as defined in the bases for Technical Specifications 3/4.1.2 (Boration Systems) and 3/4.4.9 (Structural Integrity) will not be reduced because the proposed changes meet the requirements of design criteria, applicable codes and PVNGS UFSAR.
LDCP	13LE-AF-099	This change adds indication to ensure the operability of the ESF Aux Feed Pump. The LDCP replaces the existing indicating lights and lamp holders with ones that are better suited to accommodate the full range of panel supply voltage. The LDCP provides for the addition of an indicating light on the local control panel to indicate the status of the Electric Governor-Magnetic (EGM) governor control power, and also the addition of a new relay, actuated on a loss of the EGM governor control power.	This LDCP did not introduce an unreviewed safety question. The changes described in the LDCP do not impact any applicable Technical Specifications. No change in the performance of the Auxiliary Feedwater Pump. The addition of the stated indication will ensure that station personnel are adequately aware of the functional status of the turbine driven pump governor circuit. This change does not effect the function or operability nor does it place the Auxiliary Feedwater Pump in any untested conditions.
LDCP	13LE-MT-150	This LDCP provides positive turbine tripping after Power Load Unbalance (PLU) actuation. This LDCP retains the Control Valve (CV) and Intercept Valve (IV) fast acting solenoid functions and trips the 125V Turbine Trip Bus during a PLU condition.	This LDCP did not introduce an unreviewed safety question. This modification only causes a PLU actuation to also directly trip the turbine. It will not directly cause a reactor Trip, but rather reduces the possible (mis)interaction with the Steam Bypass Control System which could result in a Reactor Trip due to overcooling of the primary. The PLU is not part of any equipment important to safety. There should also be a reduction in the number of mis-operations of the Steam Bypass Control System, and a corresponding reduction in the number of overcooling related reactor trips.
LDCP	13LJ-FP-159	PVNGS uses electric tamper switches to supervise the position of Fire Protection Water System and CO2 (Carbon Dioxide) System isolation valves. The switches are bistable devices that change state when the isolation valves are stroked out of position. The tamper switches have a history of failing, and sending false signals to the concentrators. This has resulted in an unacceptably high amount of maintenance to repair or replace the switches. It also results in a temporary loss of supervision capability for the valves. This LDCP removes the tamper switches, and replaces them with stainless steel cables and emergency breakaway locks. These items will assure that the valves will not be inadvertently stroked out of position.	This LDCP did not introduce an unreviewed safety question. Replacing the tamper switches with cables and locks does not impact Safe Shutdown equipment. Also, it does not impact the design basis functions of the Fire Protection System for fire suppression and mitigating the consequences to Safe Shutdown equipment by fire. The tamper switches are not used in the basis for the margin of safety of any Technical Specifications.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
LDCP	13LJ-SI-204	This LDCP modification removes the Auto Closure Interlock (ACI) of the Shutdown Cooling System Suction/Containment Isolation Valves. This implements a change to Technical Specification 3/4.7.11, which has been approved by the NRC. This change is in response to NRC Generic Letter 88-17.	This LDCP did not introduce an unreviewed safety question. Correspondence was submitted to the NRC, and amendments were subsequently made to the PVNGS Technical Specifications to reflect the removal of the ACI. (Ref. Amendments No. 66 to Operating License NPF-41, No. 52 to NPF-51, and No. 39 to NPF-74.) The ACI is removed, while the Thermal Overload Bypass remains unaltered.
LDCP	2LE-RC-183	Pressurizer Heater B18 (UNIT 2) has a cracked heater sheath and is electrically disconnected with its Class 1E power supply permanently connected to B17 to satisfy the six class 1E backup heater circuits required by Technical Specifications. The sleeve penetration for BIS will be plugged to maintain RCS integrity.	This LDCR did not introduce an unreviewed safety question. The temporary modification does not alter the operation, function, or operability of the Pressurizer Pressure Control System (PPCS) nor does it adversely effect the RCS Pressure Boundary. The modification will not affect the ability to safely shutdown the Unit or personnel safety. The backup and proportional (non-class) heaters serve no safety function, and do not interface with equipment important to safety or any accident mitigating equipment. The Technical Specifications require two groups of pressurizer heaters powered from the Class 1E bus with a minimum capacity of 125 kW for each group. The modification is being implemented to offset the loss of a Class 1E Pressurizer Heater, thereby maintaining the Technical Specification safety margins for pressurizer heater capacity.
LDCR		This software change automates the monitoring of the AZTILT Technical Specification limit as defined in figure 3.2-1a so that the operators do not have to constantly change the limit value in COLSS when operating at low powers. The NRC performed a safety evaluation of the proposed change and issued the amendment on October 17, 1988.	This LDCR did not introduce an unreviewed safety question. The COLSS software program is not required for plant safety since it does not initiate any direct safety-related function during Incidents of Moderate Frequency, Infrequent Incidents, or Postulated Limiting Faults (i.e., the COLSS is merely an NQR monitoring system). Furthermore, since the installation of this new software is extensively verified through testing, the effect of this LDCP on the COLSS is minimal. This change has no effect on any of the margins of safety defined in section B3/4.2.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
MNCR	92HF-9001	This MNCR change repairs the instrument for the differential pressure between the Fuel Building and the outside atmosphere by rerouting the instrument atmospheric sensing line to a place more representative of outside atmospheric pressure so that it may satisfy its intended design purpose. This 50.59 is written to evaluate the safety impact on the plant while the work under this MNCR is being performed.	This MNCR did not introduce an unreviewed safety question. The results of the calculation show that the actual air drawn through the penetrations is substantially low enough to maintain the Fuel Building negative pressure. There is no increased risk to personnel radiation exposure outside the Fuel Building during normal operations or accident conditions, because the penetration is located 120 feet in the air where no person can physically stand. The core drill penetration will not adversely affect the Fuel Building wall, since it is reinforced concrete. This adheres to the structural requirements of UFSAR Chapter 3. This change does not create the possibility of a different type of accident than previously evaluated in the UFSAR, because this change only modifies the sensing location of PDT-70. Since this work is performed in the Fuel Building, the instrument tubing routing has no effect on the operability of the Fuel Bldg Essential Ventilation System.
MNCR	93-DF-9001	This MNCR conditional release justifies continued operability of the Diesel Fuel Oil Transfer Pumps (13M-DFA/B-P01). The level indicating devices (used to measure pump suction pressure) do not meet their accuracy requirement as required for ASME Section XI, Pump Surveillance Testing.	This MNCR does not introduce an unreviewed safety question. Failure of the subject level indicating loops to meet their ASME Section XI accuracy requirement have no effect on the ability to acceptably perform ASME Section XI Surveillance Testing of the DF Oil Transfer Pumps. The applicable Technical Specification Basis (B3/4.8.1.1) margin of safety is unaffected by this DF Oil Storage Tank level instrumentation deviation.
MNCR	93-NC-2006	This MNCR allows 2JNCAPSV250 to remain in service at a setting of 200 psi instead of 150 psi. This valve is the pressure relief valve of the fuel pool heat exchanger. The 200 psi value which is called for in Appendix G of the ST procedure is a typo. This MNCR conditional release recommends to leave this valve in service while the fuel pool heat exchanger is being used. This valve will be tagged to remain "open" for the purpose of providing a thermal protection to the heat exchanger.	This MNCR does not introduce an unreviewed safety question. The probability or consequences of a malfunction of equipment important to safety will not be increased. The consequences of an accident previously evaluated will not be increased. The margin of safety as defined in the basis of Technical Specifications will not be reduced.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
MNCR	93-PH-1020,1021,	Install jumpers to continuously bypass the thermal overload relays for Safe Shutdown Cooling System valves. The Shutdown Cooling System (SDCS) provides Residual Heat Removal (RHR) capacity to the reactor during shutdown conditions. Following an accident, the Shutdown Cooling Containment Suction Isolation Valves must either be: 1) opened to provide for long term cooling of the reactor; or 2) must be closed to prevent over-pressurization of the downstream piping. Under either of these accident conditions, the thermal overload protection devices of these motor operated valves must be bypassed to ensure the valves are not inhibited from performing their safety-related function. The starter thermal overload relay contact for a motor-operated valve is bypassed by a contact of the same initiating relay that activates the motor-operated valve in the event of a LOCA. The bypass remains in effect until the initiating signal is manually reset. The thermal overloads are continuously bypassed with a jumper wire and will not be reset unless the jumper wire is removed.	This MNCR does not introduce an unreviewed safety question. The probability or the consequences of an accident previously evaluated will not be increased. The consequences of a malfunction of equipment important to safety will not be increased. This change is bringing the plant into compliance with the Technical Specifications.
MNCR	93-PH-3018	Following an accident, the Shutdown Cooling Containment Suction Isolation Valves 13JSIAUV651/655, 13JSIB652/656, 13JSICUV653/654, must either be: 1) opened to provide for long term cooling of the reactor; or 2) must be closed to prevent over-pressurization of the downstream piping. Under either of these accident conditions the thermal overload protection devices of these motor-operated valves must be bypassed to ensure the valves are not inhibited from performing their safety-related function.	This MNCR did not introduce an unreviewed safety question. This change brings the plant into compliance with the Technical Specifications. Neither the probability nor the consequences of a malfunction of equipment important to safety is being increased.
MNCR	93-RC-2026	This MNCR identified 8 locations where tubes were pulled, and 23 locations adjacent to the pulled tubes where stabilizers were installed. All locations were plugged by either welded plugs (tube pull locations) or mechanical rolled plugs (adjacent locations).	The removal of SG tubing and the subsequent plugging and staking of SG tubes can only affect the probability of the steam generator tube rupture (SGTR) events described in UFSAR 15.6.3. The location of the severed end of the remaining tube (3" below a horizontal support) is not in a high cross flow region of the SG, and thus tube whipping is unlikely. The short stub of tube which projects out of the support is stiffer than the original tube, and therefore not expected to impact adjacent tubes. The adjacent tubes have also been taken out of service, staked and plugged as an additional precaution. Design analysis demonstrate the structural integrity of both welded and mechanical plugs for the design and operating conditions associated with the original steam generator specification. There is no impact on the steam generator heat transfer performance, core thermal margin, or RCS flow rate, and the safety analysis remains unchanged.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
MNCR	93-RC-2036	This MNCR plugged 74 tubes identified during eddy current testing examination of the Unit 2 Steam Generator #1 during the U2R4 outage.	This MNCR did not introduce an unreviewed safety question. The final configuration resulting from plugging a steam generator tube has been designed as a repair in accordance with ASME B&PV Sections III and XI Code requirements. RCS pressure boundary is maintained with the installation of ASME certified plugs. B&W has performed design analyses to demonstrate the structural integrity of both welded and mechanical plugs for the design and operating conditions associated with the original steam generator specification. The integrity of the repair will be at least as good as the original tubes. The plugging of 74 tubes in Steam Generator #1 takes the total number of tubes plugged in Steam Generator #1 to 188 tubes. The total number of tubes plugged in Steam Generator #2 is now 371 tubes. There is no impact on the steam generator heat transfer performance, core thermal margin, or RCS flow rate, and the safety analysis remains unchanged.
MNCR	93-RC-2040	As a result of the Eddy Current Testing (ECT) performed during the U2R4 outage, a total of 144 tube locations in Steam Generator #2 were identified which required plugging/stabilizing. Tube plugs, and in some cases, stakes were installed in defective or degraded tubes identified during the ECT and supplementary inspections of the tubes. Of the 144 tube plug locations, 9 locations were stabilized. The mechanical plugs and remote welded plugs installed have been analyzed to the same design conditions as the SGs. The installation of the plugs will restore the integrity of the RCS pressure boundary.	This MNCR does not introduce an unreviewed safety question. The final configuration resulting from plugging a steam generator tube has been designed as a repair in accordance with ASME B&PV Sections III and XI Code requirements. RCS pressure boundary is maintained with the installation of ASME certified plugs. The integrity of the repair will be at least as good as the original tube, and therefore the repair is within the scope of the ruptured tube design basis accident. The probability of this accident (SGTR) event is not increased. The Unit 2 Fuel Reload Groundrules which documents safety analysis conservatively assumes the amount of plugged SG tubes to be 800 plugged tubes total (both SGs cannot exceed 800). The plugging of 175 tubes in SG #2 takes the total number of tubes plugged in SG #2 to 371 tubes. The total number of tubes plugged in SG #1 is now 188 tubes. There is no impact of the SG heat transfer performance, core thermal margin, or RCS flow rate. No other equipment important to safety is involved. No new accidents are introduced. Tube plugging is in accordance with the Technical Specifications.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
MNCR	93-RC-2041	This MNCR replaced 3 Westinghouse mechanical plugs and 13 CE tube plugs with B&W rolled plugs in the Unit 2 Steam Generator #2 as a result of leaking tube plugs found during the performance of 73TI-9ZZ32, "Steam Generator Secondary Pressurization Test."	This MNCR did not introduce an unreviewed safety question. The installation of welded plugs is governed by ASME Code Section XI. Although installation of mechanical plugs is not addressed by ASME Section XI, APS and B&W have developed installation acceptance criteria consistent with ASME Code requirements. The integrity of the repairs will be at least as good as the original tube, and therefore, the repair is within the scope of the ruptured tube design basis accident. The total number of tubes plugged in Steam Generator #1 is now 188 tubes and the total number of tubes plugged in Steam Generator #2 is 371 tubes. Thus, there is no impact on the steam generator heat transfer performance, core thermal margin, or RCS flow rate, and the safety analysis remains unchanged. If a plug were to fail, the leakage would be bounded by UFSAR 15.6.3. and it would not introduce any new design basis or challenge to the safety systems of the plant.
MNCR	93-SG-3057	A Type 3 Conditional Release is issued for the continued use of the Unit 3 MSIVs (EQID 3JSGEUV0170/180/181) and FWIVs (EQID 3JSGAUV0174/177; 3JSGBUV0132/137), i.e. the valves are operational. The identified non-conformance is the plugging method used on valve stem leak-off line which does not meet the requirements of Specification 13-PN-204, "Installation Spec for Field Fabrication and Installation of Nuclear Piping Systems," nor ASME Code requirements.	This Type 3 Conditional Release did not introduce an unreviewed safety question. The existing threaded plug/joints of the leak-off line without seal weld were evaluated and determined to be structurally adequate as required by ASME B&PV Section III Subsection NC. The seal weld is required only to prevent leakage and to maintain pressure integrity of the leak off lines. Even if the threaded connections on the leak-off line were to leak, the safety function of the subject valves, which is to close in an emergency, will not be affected.
MNCR	93-SI-9061	Allow continued operation/operability of the HPSI pumps while the ASME Section XI Code compliance issue of the flow indicator range is being resolved. Additional HPSI pump testing is performed to demonstrate compliance with minimum flow of 816 gpm, mini-flow dp at least 1761 psid.	The function of HPSI system is to mitigate an accident after it occurs. The conditional release has adequately demonstrated that the existing instrumentation is adequate to detect degradation and that the pumps are not degraded.
MNCR	93-SI-9063	Justification of continued operability of the RC/SI pressure isolation valves while the ASME Section XI IXV-3427(b) code compliance issue regarding leak rate trending is being resolved.	This MNCR did not introduce an unreviewed safety question. There are no physical changes to the valves or to the test procedures. The only change is to begin to actively trend the leak rate data. No equipment degradation is present, since the leakage rate data obtained by the performance of the ST would have identified any such degradation. The valve's ability to perform their design basis functions has not been affected.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
MNCR	93-SK-1002	The MNCR addresses the electrical blackout penetrations in the 140' Control Room floor. The PVNGS Security Plan requires that opening dimensions in vital area boundaries be no larger than 96 square inches. The Control Room area floor has over 100 penetrations with approximately 60 that exceed the opening dimension criteria. All of the penetrations are fed from cable trays in the 120' elevation Lower Cable Spreading Room to cabinets or control panels in or around the Control Room. All of the penetrations are sealed with either a high or low density foam material for fire resistance.	This MNCR did not introduce an unreviewed safety question. Standard procedures for Security operations include conducting hourly tours throughout the vital areas of the plant to assure that barriers have not been breached. The disposition of the MNCRs as Use-As-Is is determined based on walkdowns and discussions with Region V NRC and Licensing, who concurred that the access to the openings in the ceiling would be difficult because of the quantity of cable trays which reside directly beneath the floor slab and because the Control Room area is always occupied. Penetrations are a passive component. A malfunction of the overall security system is not expected because of the disposition of the MNCR. The established access control procedures and guidelines will assure that the requirements of the barrier will be maintained.
ODCM	MANUAL	Revision 6 to the ODCM provides one time relief from the concentration limits for discharges to the evaporation ponds. This relief is necessary to implement recovery from Steam Generator Tube Rupture (SGTR) event in Unit 2 on 3-14-93. This change represents a change to procedures as described in the UFSAR in Section 9.3.3.21.3.1.	This ODCM revision did not introduce an unreviewed safety question. This change does not change the probability of an inadvertent release of liquid radwaste. The limiting accident analyzed in the UFSAR is the rupture of the Refueling Water Tank in Section 2.4.13.3. The proposed concentration limits contained in this ODCM change are several orders of magnitude less than what was used in the RWT Rupture analysis. The incremental increase in exposure is negligible and well within 10 CFR part 20; 40 CFR Part 190; 10 CFR Part 50, Appendix I; and 10 CFR Part 100 limits.
ODCR	93M-SS-005	W.O. 569013 modifies the PASS valve module 1JSSNC02. The work involved cutting, removing, and capping tubing, and removing solenoid valves from the valve module. This work was on equipment that was abandoned in place.	This ODCR did not introduce an unreviewed safety question. PASS is used for post-accident sampling and is not included in the UFSAR Section 15. The methods of protection of safety-related systems from high and moderate energy line breaks, UFSAR Table 3.6-3, is not affected. This work order cuts and caps lines in the abandoned valve module. None of the consequences of accidents previously evaluated will be affected by this. The Preplanned Alternate Sampling Procedure, used when PASS is inoperable, is not affected by this change.







DOC TYPE	DOCUMENT NUMBER	DESCRIPTION	SUMMARY
ODCR	EQ Prog Man Chg	Changes to the APS PVNGS Equipment Qualification Program Manual include a deliberation on HELB flooding effects on Equipment Qualification for equipment outside containment; include a deliberation on outside containment areas containing post-accident EQ equipment, not served by essential HVAC; mild & harsh environments are differentiated by specifying a 25 degrees F increase, as the amount of temperature rise, associated with a post-accident condition (DBA or HELB), as harsh environment; Equipment Qualification Control Forms are explained; provide technical guidelines for seismic qualification of class 1E electrical equipment and Seismic Technical Evaluation of Replacement Items (STERI); and make corrections and clarifications to technical data.	This ODCR did not introduce an unreviewed safety question. The UFSAR Appendix 3E section to be changed/deleted and reformatted does not represent a change which may affect the accidents described in UFSAR Chapters 6 and 15. This UFSAR change does not influence design, affect material, constructions standards for equipment or affect system performance. The change does not affect Seismic Specifications, Separation Criteria, Meeting Environmental Qualification, Protection Features, or Operation.
Procedure	01PR-0AP01	This procedure states: "Program Procedures, Administrative Control Procedures, and General Business Procedures require approval by the responsible Executive Manager. Implementing procedures require approval by the responsible Department Manager or above." This change will require that the "Process owner" approve the procedure that describes that process.	This procedure did not introduce an unreviewed safety question. The changes in this program are related to ensuring an appropriate level of approval is applied for each procedure. This approval level is based on the approver's knowledge and control of the process and procedure.
Procedure	14FT-1FP04	This procedure change removes the electric tamper switches that supervise the Fire Protection Water System and CO2 (Carbon Dioxide) System isolation valves. These switches are being replaced with locks securing the valves with stainless steel cable to provide the necessary supervisory control of the valves that have been controlled by the electric tamper switches.	This procedure change did not introduce an unreviewed safety question. This procedure change does not impact any Safe Shutdown equipment nor does it impact the design basis functions of the Fire Protection System from the standpoint of fire suppression and the mitigation of the consequences to Safe Shutdown equipment by a fire. The replacement by cables and locks will provide a higher degree of assurance that the valves will remain in their proper position during normal Plant operations, and thereby assuring the capability of the installed fire suppression systems to perform their design function and protect equipment that is important to safety.
Procedure	14FT-2FP04	This procedure change removes the electric tamper switches that supervise the Fire Protection Water System and CO2 (Carbon Dioxide) System isolation valves. These switches are being replaced with locks securing the valves with stainless steel cable to provide the necessary supervisory control of the valves that have been controlled by the electric tamper switches.	This did not introduce an unreviewed safety question. Based upon the history of the tamper switch failures in the past, the replacement by cables and locks will provide a higher degree of assurance that the valves will remain in their proper position during normal Plant operations, and thereby assuring the capability of the installed fire suppression systems to perform their designed function and protect equipment that is important to safety. The tamper switches were not used in the bases for the margin of safety of any Technical Specification.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Procedure	31MT-9IA01	This procedure installs a temporary backup compressed gas supply (a temporary nitrogen bottle) to the spent fuel pool transfer gate seal. In an effort to reduce the amount of TMods generated during outages, this TMod was incorporated into a procedure. The temporary back-up assembly consist of a nitrogen cylinder, a regulator valve, stainless steel tubing, an orifice, and a pressure relief valve. This temporary back-up compressed gas supply will help ensure that the spent fuel pool transfer gate remains inflated.	This procedure does not introduce an unreviewed safety question. The probability or consequence of a malfunction of equipment important to safety will not be increased. The consequences of an accident previously evaluated will not be increased. The margin of safety as defined in the basis of the Technical Specifications will not be reduced as a result of the implementation of this procedure.
Procedure	31MT-9RC48	This new procedure will provide instructions for the installation and removal of the NES Nozzle Dams into a single Steam Generator. Alternative Nozzle Dam Study 13-MS-A78.	This procedure did not introduce an unreviewed safety question. UFSAR Chapters 6 and 15 do not address accidents in Modes 5 or 6. However, APS has addressed the possibility of a Loss of RHR while nozzle dams are installed by ensuring that an adequate vent path via the Pressurizer has been established and that a proper installation sequence is followed during nozzle dam installation. The new nozzle dams were designed and manufactured to withstand the transients involved with a loss of shutdown cooling. The margin of safety is increased when using the new nozzle dams due to the fact that new dams can be installed at a higher RCS water level than the old dams could.
Procedure	32MT-9PB02	The purpose of this procedure is to provide guidance to electricians for the installation of temporary power to loads necessary during a E-PBA-S03 bus outage. This procedure provides for the affected equipment to be functional, but not operable. Instructions are provided to ensure reliability of the power source and powered equipment. Change to the procedure specifies a new temporary source to the equipment which will be utilized to support maintenance and increase the chance of equipment availability.	This change does not introduce an unreviewed safety question. The temporary power instructions allow radiation monitor RU-07A to be functional during a E-PBA-S03 bus outage. Operation of RU-07A is necessary as support equipment to the radwaste evaporator. Loss of the radiation monitor in this lineup will only affect the ability of the plant to process water through the rad waste evaporator. Because the radiation monitor will remain in service, vice being deenergized during the E-PBA-S03 outage, plant reliability and malfunction/accident indication will be increased by the temporary power instructions. The radiation monitor does not perform a safety related function and failure of its temporary power source will result only in the inability to utilize the radwaste evaporator to support outage maintenance.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Procedure	40OP-9LR03	This procedure allows installation of a jumper consisting of flanges and interconnecting hose around the spent resin/dewatering pump to allow pumping to the CVCS Holdup Tank when the spent resin/dewatering pump is inoperable. This is to be allowed due to the pump being inoperable and the inability to fix the pump within a reasonable time period.	This procedure does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. This equipment which is part of the Solid Radwaste System does not interface with equipment important to safety.
Procedure	40OP-9SR02	This procedure allows the transfer of high activity >500 mR/hr spent resin to be transferred to the Low Activity Spent Resin Tank (LASRT). The transfer of high activity spent resin to the LASRT should occur only after exhausting every reasonable option to direct the resin transfer to the High Activity Spent Resin Tank (HASRT).	This procedure did not introduce an unreviewed safety question. The failure of the LASRT would not cause liquid radioactive materials to be released to the environment. The radwaste system and structure fully meet the requirements of Reg. Guide 1.143. Both the HASRT and LASRT rooms have floor drains that would collect leakage or tank overflow and transfer the activity to the Radwaste Sump. Both tanks are designed to hold spent resin. The LASRT room is shielded in a manner that dose rates will not cause dose rates in adjacent rooms in the Radwaste or Auxiliary Buildings, to exceed the UFSAR stated Radiation Zones. The activity or type of resin that can be placed into the HASRT or LASRT is not addressed in PVNGS Tech Specs.
Procedure	42OP-2SI05	Procedure 42OP-2SI05 is cancelled. The Iodine Removal System is no longer required per Technical Specification amendments 64 to Unit 1, 50 to Unit 2, and 37 to Unit 3 (cancelled L.C.O. 3.6.2.2). The system has been partially abandoned/disabled by LDCP 2-LE-SI-202. The interfacing systems which is still connected has been addressed in other plant procedures (40OP-9GA01 and 42OP-2SI02).	This procedure did not introduce an unreviewed safety question. Deletion of this system will not increase the probability of an occurrence of a LOCA since it is equipment that does not operate during normal plant operation. Since the spray chemical addition equipment will no longer be used for hydrazine addition to the containment spray system, there will be a decrease in the chance of a hazardous chemical handling accident. The doses have been recalculated and have been shown to remain well below regulatory limits. The slight increases in the whole body and beta skin doses are insignificant and in all cases they remain well below 10 CFR 100 limits. The Technical Specification amendments removed the requirements of maintaining an operable Iodine Removal System.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Procedure	43OP-3SI05	Procedure 43OP-3SI05 is cancelled. The NRC approved a Technical Specification change to delete the requirements of the Iodine Removal System. This approval is documented by Amendment 37 to Unit 3 which deleted LCO 3/4.6.2.2 and basis B 3/4.6.2.2. In addition, the Iodine Removal system has been disabled by LDCP 3LE-SI-202.	Cancellation of this procedure will not affect plant operation, in addition, a UFSAR change request has been submitted and included in LDCP 13LE-SI-202. The prime reason hydrazine is used is to mitigate the consequences of a LOCA by maintaining iodine in a nonvolatile form for the sole purpose of minimizing dose to the public. It does not impact plant response to the evaluated events. The doses have been recalculated and have been shown to remain well below regulatory limits. The slight increases in the whole body and beta skin doses are insignificant and in all cases they remain well below 10 CFR 100 limits.
Procedure	70TP-9GT01	Procedure 70TP-9GT01, "GAS TURBINE GENERATORS AND STATION BLACKOUT TEST," performs a pre-operational test of two new Gas Turbine Generators (GTG) installed for the Station Blackout (SBO) Project. In addition, a Unit 1 Station Blackout is simulated and startup of SBO equipment is timed.	This procedure did not introduce an unreviewed safety question. The GTG's are designed to provide emergency power to selected SBO required loads within one hour to one Unit in the event all offsite power is lost to that Unit and neither Emergency Diesel Generator in that Unit will start. All testing will be performed in Mode 5 or below and will not affect the train of equipment required to be Operable by Tech Specs. With Train B Class 1E power system fully operational for all load testing of the GTG's.
Procedure	73ST-1DG02	This procedure revision 73ST-DG02 incorporates EDG 100% Load Rejection testing and recovery from periodic testing on SIAS. This change is a revision to a surveillance test required to meet the 18 month surveillance requirements for each Diesel Generator and its respective safety train equipment's response to accident conditions. The test simulates the design basis accidents of SIAS, CIAS, LOP, and AFAS by actuating manual trip pushbuttons built into the Engineered Safety Feature Actuation System (ESFAS) cabinets.	This procedure did not introduce an unreviewed safety question. The testing is performed during Modes 5 & 6, and none of the equipment under test is required to be operable. The testing is only done on one safety related train at a time. This test is required to meet the requirements of the Technical Specifications for the Diesel Generator and the associated Engineered Safety equipment.
Procedure	73ST-2DG01	This procedure change is a revision to a surveillance test required to meet the 18 months surveillance requirements for each Diesel Generator and its respective safety train equipment's response to accident conditions (Train A). The test simulates the design basis accidents of SIAS, CIAS, LOP, and AFAS by actuating manual trip pushbuttons built into the Engineered Safety Feature Actuation System (ESFAS) cabinets.	This revised procedure did not introduce an unreviewed safety question. The testing is performed during Modes 5 & 6 and none of the equipment under test is required to be operable.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Procedure	73ST-2DG02	This procedure change is a revision to a surveillance test required to meet the 18 month surveillance requirements for each Diesel Generator and its respective safety train equipment response to accident conditions (Train B). The test simulates the design basis accidents of SIAS, CIAS, LOP, and AFAS by actuating manual trip pushbuttons built into the Engineered Safety Feature Actuation system (ESFAS).	This revised procedure did not introduce an unreviewed safety question. The testing is performed during Modes 5 and 6 and none of the equipment under test is required to be operable.
Procedure	74AC-9CY04	This procedure provides for Systems Chemistry Specifications Waiver of Specifications due to hideout return during Unit downpower events. Operating ranges and action levels are provided for various chemical impurities. During Unit downpowers, chemical impurity levels increase in the steam generator due to hideout return. The EPRI guidelines recommend that power reductions to a plant-specific level be accomplished when action level 2 is entered. Hideout return (increases in impurity concentrations) is expected during downpowers and is different from impurity ingress into the steam generators.	This procedure did not introduce an unreviewed safety question. CE letter MCC-91-345 (July 31, 1991) adopts the position that the action level values assigned in the EPRI guidelines do not apply to plant operating conditions which are transient in nature and where it can be clearly demonstrated that any increase in impurity concentrations is not the result of an ingress of that impurity. CE letter MCC-93-516 (October 8, 1993) states "ABB does not believe that returning to a higher power level following a period in which the only increase in back water impurities was caused by hideout return will impose any additional risk of IGA/IGSCC to the steam generator tubing." The overall risk of IGA/IGSCC to steam generator tubing would not be expected to increase. No Technical Specification bases are associated with secondary chemistry specifications.
Procedure	74AC-9CY17	Allow oil samples that contain trace amounts of radioactive material to be analyzed in the Central Chemistry Laboratory located in the Administration Annex (Admin Bldg. "E"). Some of the oil that will be analyzed in the laboratory will originate within a radiologically controlled area; therefore, radiation values would have to be met for the oil to be free released. Since trace amounts of radioactive material may not degrade the quality of the oil or prevent its continued use, it is necessary to analyze oils with trace amounts of radioactivity.	This procedure did not introduce an unreviewed safety question. The chemistry laboratory shall be monitored for radioactive contaminants at least monthly, and daily when radioactive oil samples are being analyzed. Eating, drinking, and smoking is prohibited in the chemistry lab while personnel are handling or analyzing contaminated samples. Personnel working with radioactive oil shall perform whole-body monitoring using a PCM or frisker prior to exiting the Chemistry laboratory. The chemistry laboratory is located outside of the protected area fence and does not interface with any equipment important to safety.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Procedure	74TT-9SC01	This new procedure, "Ethanolamine Test (ETA)" implements test instructions for testing the feasibility of using ETA for secondary pH control in lieu of ammonium hydroxide. The test instruction is to be utilized to provide guidelines for implementing and evaluating ETA as an alternative to ammonia for secondary pH control.	This new procedure did not introduce an unreviewed safety question. The use of chemical additives for pH control in the secondary steam cycle is not included in any Technical Specification basis. An evaluation of control room habitability per Regulatory Guideline 1.78 has been performed by the Nuclear Engineering Department. Results of the evaluation have been implemented into the procedure to preclude an increase in the probability or consequences of an ETA spill at the bulk storage tank.
Procedure	78CP-9FH10	Profilometry of irradiated fuel rods. UFSAR Section 4.2 discusses fuel inspection programs such as the subject examination.	This procedure did not introduce an unreviewed safety question. Provisions have been included in the design of the fuel storage pool, racks, and rods to account for these examinations. The profilometer has been designed using rollers to minimize any impact to the fuel rod cladding. In the worst case scenario, the examination could involve the failure of a single fuel rod. Single fuel rod failures are not addressed in the UFSAR because the consequences of this failure, or accident, are bounded by the input parameters and assumptions of the fuel assembly handling accident. The over pool load limits, spent fuel pool water levels and fuel building ventilation requirements will be adhered to as required by existing fuel handling and equipment operating procedures.
Procedure	78OP-9FX03	This procedure changes the water depth above fuel assemblies during maintenance. The temporary use of spacers in the racks is to elevate fuel assemblies for surveillance or maintenance. In UFSAR Section 4.2.4 and 4.2.1 Fuel Inspection programs are required and Fuel Reconstitution is mentioned as part of the design of the fuel.	This procedure did not introduce an unreviewed safety question. The UFSAR considers the drop of an irradiated fuel assembly as the worst case fuel handling accident and is detailed in UFSAR Section 15.7.4. The use of spacers in the Spent Fuel Storage racks has no impact on the probability of the Spent Fuel Handling machine or the 10-Ton Crane dropping a fuel assembly or other load onto the Spent Fuel Racks. There will be less than 23' (approximately 22'6") of water above the damaged fuel rods. The 6" difference in water along with fewer damaged rods than that considered in the UFSAR. The worst case fuel handling accident was determined to still be limiting with the use of spacer(s).







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Procedure	85CP-9BT27 & 28	These procedures, "Steam Generator Chemical Cleanup" provides temporary installation of BWNS supplied chemical cleaning system to clean the steam generators. This system is designed to formulate, mix, inject, recirculate, heatup, cooldown, and remove all process solvents and rinse solutions utilized in the cleaning. This system will be connected to the steam generators through various preexisting connections or temporary modifications to perform the chemical cleanup, and will be removed at the end of the process prior to Mode 5 recovery.	This procedure did not introduce an unreviewed safety question. The temporary installation of the chemical cleaning system does not alter the design, function, or method of the structure, system, or components (SSC) of the Secondary System. None of the SSCs required to mitigate the consequences of any of the previously analyzed accidents are affected. The maximum anticipated steam generator pressure as a result of the conduct of chemical cleaning operations is 517 kPa gauge (75 psig), therefore, there is no temperature limitation.
Procedure	QA Plan	Revision to the Operations QA Plan Amendment updated organization responsibility descriptions to reflect new titles resulting from Reengineering.	This procedure did not introduce an unreviewed safety question. The changes are only administrative in nature to reflect approved changes made in organization titles. The changes will not affect equipment important to safety nor will facility operation be changed. The margin of safety is not affected by the changes being made.
Procedure	QA Plan	Revision to the Operations QA Plan removed references requiring procedures and instructions to be identified as Quality Related. The revision also clarified description of activities to which the QA Plan applies.	This plan changes did not introduce an unreviewed safety question. The changes are only administrative in nature. The changes are 1) to clarify or 2) to improve guidance in areas recently addressed by Regulatory direction. The changes will not affect equipment important to safety, nor will facility operation be changed. The margin of safety as defined in the basis for any Technical Specification is not affected by the changes being made.
SARCN	3243	This SARCN clarifies sections 9.2.5 and 9.2.5.4.D to show 2 separate nonredundant spray ponds vs. 2 separate and redundant ESPS heat removal trains. Specifically, show that the spray pond cross connect valves are part of the spray ponds; and not part of the heat removal train, ESPS.	This UFSAR change did not introduce an unreviewed safety question. Redundant ESP and the redundant valves between the two ESP provide the capability to supply cooling water flow in the event of the failure of one intake. The failure of one valve to open has no effect on the system because there is a redundant valve. A valve which is open to equalize water level or for maintenance is not contradictory to the UFSAR and should not put a unit into the action statement provisions of tech. spec. 3/4.7.4. The bases for Technical Specification 3/4.7.4 assure the operability of the spray pond system. This is maintained by the surveillance test which ensures that the valves in the cooling loops are in their correct position.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3259	This revision to UFSAR Section 9 revises the nomenclature used to describe fire doors which are not labeled because of unique construction applications. The doors have been certified by the manufacturer to be of labeled construction. The change to the UFSAR will reflect that these doors are 'certified'. This change will remove the fire rating classification so that the description of the doors in Section 9B is consistent with the discussion in Question 9A.106.	This UFSAR revision did not introduce an unreviewed safety question. Section 9.5.1.1.1 of the UFSAR for the Fire Protection System is not changed. The change is a correction and clarification and is consistent with UFSAR Question 9A.106 response. The Fire Protection System is not addressed in the Technical Specifications.
SARCN	3260	Supersede drawing #13-C-OOA-030. Create unit unique drawings to show location of settlement markers in each unit. Settlement markers are pins or 1/2" tees on structural members of critical structures to monitor settlements by optical methods. This change involves changing the position/location of some of the settlement markers from their original position/location. The new settlement markers are still on the same structural members of the structures, but the position has been slightly changed to further facilitate the monitoring of settlements by optical methods.	This change does not introduce an unreviewed safety question. The possibility of an accident of a different type than any previously evaluated will not be created. The removal of 1/2 inch NQR tees on structural members of structures will not create any accident of a different type than previously evaluated. The margin of safety as defined in the Tech Specs will not be reduced. (ODCR 91C-ZY-010)
SARCN	3293/3333	Delete the restriction to the storage of radioactive material or low-level waste in the radiologically controlled plant yards while awaiting processing, shipment, or use.	This UFSAR revision did not introduce an unreviewed safety question. Radiation protection measures are taken by radiation protection staff to assure compliance with 10CFR20 and to be consistent with the recommendation of NRC Regulatory Guide 8.8. Materials stored in the plant yard will not increase the probability of the RWT rupturing. Also, materials stored in the plant yard will not be connected to any safety related systems or components. The quantity of radioactive material contained in each outside temporary tank and the reactor makeup water tank shall be limited to less than or equal to 60 curies. (EER-ZY-003)
SARCN	3295	Add clarification to allow cleanup of Diesel Fuel Oil and clarify the time requirement for "remaining specifications" as 2 weeks. This change will clarify the PVNGS commitment to Reg Guide 1.137, position C.2.a, to reflect the use of an offsite laboratory to analyze diesel fuel storage tank contents, within 2 weeks from sampling, for "remaining specifications." Additional clarification will reflect PVNGS option to process fuel oil back to within specification in a short period of time (about a week from identification), rather than to always replace it with new fuel oil.	This UFSAR revision did not introduce an unreviewed safety question. This change allows reprocessing of contaminated fuel oil vs disposal (as feasible) while maintaining the "short period (about a week)" requirement, and provides clarification of the time requirement for quarterly analyses of onsite diesel fuel to be the same as that for new fuel receipt (2 weeks) since these remaining specifications are analyzed offsite at a third party laboratory. The margin of safety as defined in the bases for Technical Specification 3/4.8.1.1 (3.8.1.2) is not reduced; and no change is made to any equipment or parameters associated with diesel fuel oil.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3297	Change UFSAR to delete reference to specific brand names for coatings used in containment. The State of California, Air Quality Management District has banned the application of coatings that contain high Volatile Organic Compounds. Among these is Carbozinc 11, required for our valve specifications. Approximately 100 valves on order with Borg-Warner, will be coated with Valspar V 13-F-12. This inorganic zinc coating meets the VOC requirements.	This UFSAR revision did not introduce an unreviewed safety question. Protective coatings do not perform any safety function and will not affect the safe shutdown of the reactor. Protective coatings used inside the containment, excluding components listed by size and/or exposed surface area, are demonstrated to withstand the design basis conditions and meet the intent of ANSI 101.2 (1972). The changes do not alter in any way the requirements of the coating or the type of coating to be used in containment.
SARCN	3299	Investigation Report No. 91-1-0062, CRDR No. 9-1-0062, identified potential concerns regarding high energy line breaks (HELB's) in the Auxiliary Building. As a result, it was discovered that the high energy Auxiliary Steam and Letdown lines outside containment were not included in the UFSAR. This change adds a break location figure for the Letdown line outside containment, revises Figure 3.6-31 to include the entire high energy Auxiliary Steam System in the Auxiliary building, and revises Table 3.6-2 to include the Auxiliary Steam lines.	This UFSAR change did not introduce an unreviewed safety question. The break of the Letdown line outside containment and upstream of the Letdown line control valve, selected for the analysis in Section 15.6.2, is not changed by the proposed figure changes. The temperature, pressure and humidity effects of the pipe breaks shown in the proposed figure changes on equipment in the Auxiliary Building have been evaluated. The effects of pipe breaks shown in the proposed figure changes have been evaluated and all existing design limits have been met. Pipe whip and jet impingement effects for the Letdown line and Auxiliary Steam lines in the Auxiliary building have been evaluated.
SARCN	3301/3389	Editorial change. Clarify UFSAR Appendix 9A Question 9A.66 to reflect actual design criteria requirements for lighting protection.	
SARCN	3302	Add a statement to UFSAR subsection 6.2.5.2.2.2 and Table 1.8-1 which states that the heat trace used on the hydrogen monitoring sample piping is nonsafety related, Seismic Category IX. Seismic category IX hydrogen heat trace circuitry is nonsafety related heat trace and is an acceptable support system for the H2 Analyzers.	This UFSAR revision did not introduce an unreviewed safety question. The H2 heat trace is continuously energized. The hydrogen Analyzers are normally in a stand by mode and, other than for testing purposes, are only activated in a Post LOCA situation. Therefore, since the Hydrogen Analyzers do not provide any pre-accident safety function, the acceptance of nonsafety related Seismic Category IX heat trace circuitry will not increase the probability of an accident. The failure of the heat trace does not affect the ability of the Recombiners or the Purge Unit to mitigate the consequences of an accident. The margin of safety as defined in the basis for Technical Specification 3/4.6.4 will not be reduced.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3303	Revise table 9.4-3 of the UFSAR for the Diesel Generator Room Normal Unit Heater rating from 5.0 KW to 15.0 KW. This change does not modify the function of equipment associated with the Diesel Generator Room Normal Unit Heater nor does it have an impact on the ability of the diesel generator to perform its safety related functions. The change in KW rating from 5 to 15 reflects a documentation change only in Table 9.4-3 of the UFSAR to be consistent with all other project documents.	This UFSAR revision did not introduce an unreviewed safety question. The proposed change will reflect the "as-built" load and has no impact on equipment designed to support the diesel generator safety related functions.
SARCN	3305	Add "The Specification for particulate contamination will be 10 mg/liter, maximum" to UFSAR Rev 3 Section 1.8, Response to Reg Guide 1.137, Exception A. This change reflects Federal Fuel Specification VV-F-800(d).	This UFSAR revision did not introduce an unreviewed safety question. Including a specification for maximum particulate contamination of 10 mg/liter (as specified in Federal Fuel Specification VV-F-800(d)) does not affect any accident analysis. This revised limit is considered acceptable by virtue of the (c) and (d) issue of VV-F-800. This change does not affect the usability of the Diesel Fuel. There is no impact on the Operability of the Diesel Generators.
SARCN	3306	This change to UFSAR Section 1.8, "Conformance to NRC Regulatory Guides," Regulatory Guide 1.75, Response C clarifies that the redundant fuse/circuit breaker combination that now exists in the power input lines of the SESS, to prevent failures within the SESS from affecting the Class 1E 125 FDC bus, is not one of the "isolation devices" referred to in the previous paragraph.	This UFSAR revision did not introduce an unreviewed safety question. The response wording adequately describes how associated circuits are separated by isolation devices between redundant trains and from Non-Class 1E equipment. This clarification will have no effect on the probability or consequences of an accident.
SARCN	3307	The UFSAR is being corrected to properly reflect the existing facility configuration. In Section 3.7.4.2.1 of the UFSAR (under "Seismic Instrumentation") the text states that the magnetic recording and playback unit tape recorder has more than one internal trigger continuously monitoring accelerometer outputs. In fact, there is only one such trigger.	This UFSAR revision did not introduce an unreviewed safety question. The seismic monitors are a non-safety related post-event recording system only. The fact that there is one instead of two internal backup triggers will not affect probability or consequences of an accident previously evaluated in the UFSAR.
SARCN	3309	Modify UFSAR Revision 3, Section 12.5.2.3 to delete reference to the performance of thermoluminescent dosimeter (TLD) response checks in the Calibration Facility.	This UFSAR revision did not introduce an unreviewed safety question. Thermoluminescent dosimeter (TLD) response checks will no longer be performed in the Calibration Facility after the new WE 2001 PC TLD Irradiator becomes operational in Trailer 66. Since Trailer 66 is not described in the UFSAR, it is not necessary to move this statement to any other section of the UFSAR. TLD response checks have no safety implications, and deleting this statement will have no bearing on the level of safety at PVNGS.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3310	Clarify UFSAR section 6.3.2.2.5 to explain PVNGS's methodology for long term cooling HPSI hot leg injection flow balancing. Add a new UFSAR section 1.9.2.4.xx to show that PVNGS is taking an exception to CESSAR section 6.3.2.2.5.b.	This UFSAR change did not introduce an unreviewed safety question. This change does not alter the function or operability of the safety injection system. This change is only a clarification to show the present methodology used to obtain the 50/50 flow balance between the hot and cold legs which is done manually by the operator without relying on the limit switch setting to balance the flow. This change meets the original design intent. Surveillance testing is still required. Nothing has been added to or removed from the system to alter its physical configuration. The combined simultaneous hot/cold leg flow is less than pump runoff.
SARCN	3312/3284	Editorial changes. Update UFSAR table 6.2.4-2 to reflect the correct & licensed position of SG blowdown sample isolation valves.	
SARCN	3314	Install the second phase of the Cooling Tower Blowdown Recovery System which consists of replacing the existing temporary above-ground Yelomine (PVC) and buried gray PVC pipe between the Blowdown Recovery Pump Station at the Evaporation Pond and the Water Reclamation Facility.	This DCP did not introduce an unreviewed safety question. Replace temporary piping with permanent piping and will have no impact on any accident previously evaluated in the UFSAR. The probability of evaporation pond leakage to the groundwater, as analyzed in sections 2.4.13.2 and 2.4.13.3 would not be affected by the scope of this modification. The Evaporation Ponds have an installed leak detection system that is unaffected by this change. The addition of the Cooling Tower Blowdown Recovery System, and the replacement of the temporary above-ground piping with permanent Drisco below grade piping does not increase or decrease the consequences of the pond liner failure event since the piping system can be isolated from the Evaporation Pond. (See DCP WDP-FC-118).
SARCN	3315	As part of the review of the Hazards Section of the Design Basis Manual, some of the information in Calculation 13-MC- ZA-803 and Calculation 13-MC-ZA-802 was verified with the Vendor. Changes to Calculation 13-MC-ZA-803 (in Rev 3) results in changes to UFSAR Table 3.5-1 INTERNALLY-GENERATED ROTATING COMPONENT FAILURE MISSILES OUTSIDE CONTAINMENT Sheet 1 of 2.	This UFSAR revision did not introduce an unreviewed safety question. The clarification of UFSAR Tables 3.5-1 and 3.5-3 do not identify additional missiles, nor increase (or decrease) the identified potential missiles energy. The change to the UFSAR clarifies the information of potential missiles generated by rotating equipment as listed in UFSAR Tables 3.5-1 and 3.5-3.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3319	<p>This UFSAR change will clarify that operation of the turbine building duct heaters was not required to be verified in Unit 2 during startup testing. The heaters were tested during startup in Units 1 and 3. These heating units have since degraded to a point of not being able to function as designed and are presently not in service. These heaters will not be replaced because: 1) past conditions indicated that the heaters are seldom used and there have been no adverse affects to the building/equipment inside from the heaters being out of service; 2) Freezing temperatures would only be a threat to the turbine building during cold season or during shutdown conditions (outages); Operation's Freeze Protection Procedure would prevent any damage to equipment in the Turbine Building by adding temporary heating sources; 3) No Tech Specs relate to the environment of the Turbine Building; these heaters are not required for the safe shutdown of the plant. A statement will be added stating that the testing was complete in Units 1 and 3, however, this test will not be required in Unit 2.</p>	<p>This change does not introduce an unreviewed safety question. These heaters are NQR and are not required for safe shutdown. Therefore, the probability of an accident previously evaluated remains unchanged. There are no Tech Specs associated with this equipment.</p>
SARCN	3320	<p>Editorial changes. Add a footnote to Tables 18.II.E-2 to clarify that the post CIAS postions shown are not necessarily the result of the CIAS and will make editorial corrections to ensure the seciton 28.II.E is consistent with Tech Specs.</p>	
SARCN	3321	<p>Update UFSAR Sections 9.2.1.6, and 11.5.2.1.2.2, and Table 7.1-3 by adding CSAS, AFAS-1 and AFAS-2 to the list of signals that will actuate both trains of the ESPS and ECWS. Correct three typographical errors on Pages 7.1-19 and 11.5-40 of the UFSAR.</p>	<p>This UFSAR revision did not introduce an unreviewed safety question. The proposed changes to UFSAR pages 9.2-10, 7.1-19 and 11.5-40 are only to correct omissions and typographical errors. The margin of safety as defined in the basis for Technical Specification will not be reduced.</p>
SARCN	3322	<p>This change is the result of a review of UFSAR Chapter 18. The change corrects as-built conditions of post accident sampling system (PASS) and requirements of NUREG 0737 item II.b.3. The change adds information on the duration of PASS operability. Based on equipment maintainability and radiation exposure, PASS is capable of providing samples Post-Accident as follows: one sample per day for the first seven days and one sample per week until the accident condition no longer exists.</p>	<p>This UFSAR revision did not introduce an unreviewed safety question. Accident probability is not affected by PASS sample methods. PASS samples continue to be taken per the requirements of NUREG 0737.</p>
SARCN	3324	<p>This change in the UFSAR replaces the word, "Speccoat" with "protective coating" in the second sentence on page 10.4-5 of the UFSAR, revision 4. This coating change to the condenser water boxes will allow the use of new technology in protective coatings. New technology coatings are more flexible which will allow longer outage duration during maintenance outages.</p>	<p>This UFSAR revision did not introduce an unreviewed safety question. The new coating technology is more flexible and therefore absorbs more energy during normal and abnormal operating outage conditions.</p>







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3330	This screening resulted in the discovery of numerous discrepancies and inaccuracies between the Radiation Monitoring System Description Manual, Design Criteria Manual, the UFSAR, and the Technical Specifications. This change addresses the inaccuracies in the UFSAR and provides editorial corrections where appropriate. Radiation monitoring setpoint and range values are included in this change. The setpoint calculations support the values given in the Technical Specifications.	This UFSAR change did not introduce an unreviewed safety question. The basis for the radiation monitoring setpoints, nor the setpoints given in the Technical Specifications are not changed and do not change the accident causes, events, nor the consequences described in Chapter 5, 6, 11, 12, and 15. The bases for Technical Specifications 3/4.3.3.1 and 3/4.3.3.8, which are applicable to radiation monitoring channels, are not changed.
SARCN	3331	This modification will change UFSAR section 8.3.1.1.9(D). An additional statement added to this section to allow class 1E motors to exceed the 75% minimum voltage criteria allows motor performance evaluations under worst case design basis conditions to use the analyzed minimum voltage instead of the generic 75% minimum voltage.	This UFSAR change did not introduce an unreviewed safety question. The proposed change does not affect the operation of the Class 1E motors. All Class 1E motors which exceed the 75% minimum voltage criteria will have an analysis which demonstrates the motor can provide the accelerating capability to perform its safety function for all expected worst case operating conditions under worst case minimum voltage conditions. The margin of safety as defined in the basis for any technical specification is not reduced by the subject change since the motor's ability to operate during worst case reduced voltage conditions is not affected.
SARCN	3334	Change UFSAR Section 18.11.E.3.1 to delete the requirements to shed automatically pressurizer heaters, fed from the Class 1E power system, upon loss of offsite power (LOP) actuation signal. PVNGS does not have automatic load shed of "Q" pressurizer heaters upon LOP actuation signal - only upon SIAS actuation signal.	This UFSAR change did not introduce an unreviewed safety question. This change does not affect the functional design of the Reactor Coolant System. This change does not affect as-built configuration. The performance of the safety system will not be degraded below the design basis. The design and operation of heaters and pressurizers are not going to be changed. The emergency operation procedure remain unchanged. PVNGS will continue to meet NUREG 737 requirements.
SARCN	3335	The disposition of this MNCR accepts the use of a C label, 3/4 hour fire door (one per unit) in the Corridor Building stairwell in lieu of the B label, 1 hour door required by National Fire Protection Association (NFPA) Standard 80, Fire Doors and Windows.	This MNCR did not introduce an unreviewed safety question. The affected barriers are installed for life safety reasons and are not required for compliance with any regulatory requirement. The change does not mandate the introduction of any new combustibles or ignition sources into the units. The change does not reduce the rating of the fire barrier enclosing the stairwell and does not decrease the ability of personnel to utilize the stairway in the first 30 minutes of a fire.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3336	This proposed change is for the removal of the recorder XJ-SQA-RR-029 used for Channel A Safety Related and Qualified radiation monitor datalogging.	This change did not introduce an unreviewed safety question. The recorder is not an accident initiator and has no bearing on accident probabilities for events described in the UFSAR. This change removes the redundant recording capability associated with the recorder. Datalogging and trend information is still available. No margin of safety is specified by or related to the functional requirements of the radiation monitors associated with the recorder. The recorder itself is not required by the Technical Specifications.
SARCN	3338	This change revises Table 6.2.5-3 (Sheet 1 of 2) and Figures 6.2.5-2 and 6.2.5-3 in the PVNGS UFSAR to include the quantity and effects of four aluminum Limitorque motor operators for RC-430, RC-431, RC-432, RC-433. Reference ISE Field Evaluation 92-10 "Incomplete Primary Containment Aluminum Inventory." The Post-LOCA H2 Buildup (Figure 6.2.5-2) and the H2 Production Rate vs. Time (Figure 6.2.5-3) will be revised based upon the increase of the aluminum inventory inside containment.	This UFSAR change did not introduce an unreviewed safety question. The change is considered minor in nature and will not in any way affect the design or operation of the hydrogen control systems or any other system. The subject changes will have no affect on the input parameters, event sequences, or operator response for any of the accidents previously analyzed for PVNGS. The conservatism of the Post-LOCA hydrogen generation calculation compensates for the aluminum which is added to the inventory. The change will not result in the hydrogen generation in excess of that specified as a maximum of 4% per Regulatory Guide 1.97.
SARCN	3340	Editorial Changes. Revise UFSAR Section 9.5.1.4.B to clarify the scope of the NFPA Codes that were used as guidance in determining the content and frequency of fire protection tests and inspections. The added verbiage will clarify that only those NFPA Codes mentioned in other sections of the UFSAR and were used as guidance.	
SARCN	3341	Change UFSAR section 9.5.4.2.1 from "-- houses the transfer pump and associated valving and provides for protection and accessibility to the connections on the tank" to "provides for protection for the access to the submersible transfer pump in the tank, connections on the tank and transfer pump associated valving."	This UFSAR revision did not introduce an unreviewed safety question. No changes are made in the facility or design criteria as previously evaluated. No changes are made to the plant configuration and no changes are required to existing maintenance and testing procedures. The margin of safety as defined in the Tech Specs 4.8.1.1.2.b, 4.7.10.2.b.3, 3.8.1.1.3 and 3.8.1.2.3 will not be reduced by this action.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3358	Response to UFSAR Question 9A.123 does not include the CPVC piping penetrating the 3-hour rated walls between the battery and DC equipment rooms. The CPVC vent piping not only penetrates the fire rated floor, but also penetrates the 3-hour rated block walls in the same (A) train between zones 6A (DC equipment room C), 8A (Battery Room C) and 9A (Battery Room A) at approximate elevation 108' and the 3-hour rated wall in the same (B) train between zones 8B and 9B battery rooms B and D at approximate elevation 113'.	This UFSAR revision did not introduce an unreviewed safety question. The CPVC vent piping does not penetrate barriers separating redundant safe shutdown trains and the probability of fire spreading between zones in the same train is very low. The consequences are not significant because the other safe shutdown train would be undamaged by the fire. The location and size of the penetrations, and overall protection provided, assures a low probability of fire spread between zones in the same train. Since there would be no path for fire spread between trains, the probability or consequences of a malfunction of equipment important to safety will not be increased. This change will not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire because the other train will be available for safe shutdown of the plant. These rooms, located in the 100' Control Building, have early warning fire detection systems and are readily accessible for manual fire fighting.
SARCN	3368	Changes to the organization, training and qualification section of the UFSAR will be made. These changes will incorporate the SRO limited to fuel handling (LSRO) program into the UFSAR.	This UFSAR change did not introduce an unreviewed safety question. The presence of the LSRO will ensure strict procedural compliance along with his monitoring proper and safe operation of the Refueling Machine and its associated interlocks. The addition of these changes to the UFSAR will have no effect on the analysis found in Section 15.7.4.2. The consequences of the fuel handling accident described in UFSAR Section 15.7.4.2 would still be the same, as this change only provides descriptive information to incorporate the LSRO Program into the Organization, Qualification, and Training Sections of the UFSAR. These changes have no direct bearing on the margin of safety.
SARCN	3370	This UFSAR changes Section 9.5.3.3.a to show RG. 1.29 Position C.1.n applies to control room (CR) horseshoe area emergency lighting system whereas Position C.2 applies to the rest of emergency lighting system. Table 3.2-1: Relocate CR ceiling structure to "Misc. Structures" section. Identify CR emergency lighting system for CR horseshoe area as SC1, Quality Class QAG.	This UFSAR change did not introduce an unreviewed safety question. These clarifications to the emergency lighting system will have no effect on the probability of a fire or any other accident scenario proposed in UFSAR Chapter 15. The changes more accurately describe the actual system configuration and will strengthen consistency between PVNGS design documents. Emergency lighting is not discussed in the Technical Specification Section 3/4 nor is it considered in the basis for the margin of safety as described in the Technical Specification Section B 3/4.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3371	Add detail to the UFSAR to allow calibration of the loose parts monitoring system setpoint adjustment above background noise level at 100% reactor power. UFSAR Section 7.7.1.1.8 specifically mentions the alarm setpoint is established during baseline testing. This change will allow the LPMS to discriminate between signals induced by the impact of a loose part from those signals induced by normal hydraulic, mechanical, and electrical background noise and large amplitude electrical transients.	This UFSAR change did not introduce an unreviewed safety question. The purpose of the LPMS is to preclude an event caused by a loose part damaging the primary system. This change will improve operation of the LPMS. The LPMS will continue to function as required per RG 1.133.
SARCN	3373	This change will remove the Auto Closure Interlock (ACI) in the Shutdown Cooling System (SDCS). This change implements a technical specification change to 3/4.7.11 that has been approved by the NRC. The ACI closes the SDCS isolation valves if RCS pressure should rise above predetermined setpoints during shutdown cooling operation. Over the past several years, experience in the industry recognized inadvertent ACI as a frequent cause of loss-of-shutdown-cooling events.	This UFSAR change did not introduce an unreviewed safety question. The Combustion Engineering Owners Group (CEOG) sponsored a task to evaluate the removal of the ACI (CEOG Task 582). The CEOG task was documented in topical reports NPSD-548 and NPSD-550. The reports concluded that the removal of the ACI is acceptable. This change does not affect any procedure as described in the UFSAR. This change does not involve any test or experiments not described in the UFSAR.
SARCN	3374	UFSAR Section 9.2.4.2.1.5 is revised to delete the sentence relating to the type of piping materials used for the Reverse Osmosis (RO) cleaning/flushing system and the hypochlorite piping. This will provide Water Reclamation Facility (WRF) with the flexibility to use the best, cost effective pipe. This deleted sentence and the entire section is too restrictive for a system whose malfunction or failure has no adverse effect on any safety-related system or component.	This UFSAR change did not introduce an unreviewed safety question. The Domestic Water (DS) system serves no safety function and has no safety design basis as given in UFSAR Sections 9.2.4.1 and 9.2.4.3. No previously evaluated accident, as given in UFSAR Chapter 15, involves the DS system. The RO unit cleaning system is part of the DS system, thus changing the piping material will not affect a previously analyzed accident.
SARCN	3375	This modification will upgrade bullet resistant fire door J-319 and replaces the existing door with a similar design that will satisfy all of the design criteria for the barrier. This DCP will install a new door at the entrance of the Control Room airlock at the 140' elevation in the Control Building.	This UFSAR change did not introduce an unreviewed safety question. The fire rating and security requirements for the barrier do not encounter any changes from the design basis documents for this modification. The new design will be two separate openings because of the center mullion and per NFPA 80, a 1/2" latchbolt is required. These doors are considered a passive component of the fire protection system. The new design will maintain the integrity of the barrier and will be consistent with requirements of the UFSAR and other applicable Codes, and Section 3/4.7.7 of the Technical Specifications. (DCP 1,2,3 PC-FB-002).







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3376	This change results from the safe shutdown reevaluation. Section 9B.1.3 describes the methodology used in the evaluation. Section 9B.1.4 now describes the Fire Hazards Analysis. Table 9B.1-3, Safety Function Success Paths, and Figures 9B-37 through 9B-50 were deleted. This information is now contained in Calculation 13-MC-FP-315 and Drawings 13-M-FPR-001 through -021. Table 9B.1-4, Listing of Active Safe Shutdown Equipment, was deleted. This information is now contained in 13-MC-FP-315.	This UFSAR change did not introduce an unreviewed safety question. The Appendix R Safe Shutdown Analysis Reconstitution verified that, for a fire in any given analysis area, the plant can be safely shut down. The remodeling of the 140 foot elevation does not affect safe shutdown related conduit above the finished ceiling. There is no increased exposure to these conduits because the combustible loading has not changed significantly and the area is still protected below the finished ceiling by an automatic wet pipe sprinkler system.
SARCN	3378/3410	Revise UFSAR Section 13.1 to show the realignment of the nuclear organization.	This UFSAR change did not introduce an unreviewed safety question. The qualification of the nuclear organization personnel will be in accordance with ANSI 3.1-1978 which is consistent with UFSAR Section 1.8. This change has no impact on any equipment which is important to safety and no impact on facility operation.
SARCN	3380	The proposed change documents a Steam Generator Tube Rupture with Loss of Offsite Power (SGTRLOP), without a single failure, which is not currently described in the FSAR. The FSAR describes only a SGTR event and a SGTRLOP event with a single failure consisting of a stuck open ADV.	This UFSAR change did not introduce an unreviewed safety question. The probability of a SGTRLOP occurring is not affected by this event. SGTRLOP occurrence is a precursor, rather than a result, of the event. The change provides a more conservative treatment of the SGTRLOP event, yet produces dose consequences within the specified acceptance criteria, its inclusion in the UFSAR constitutes an unreviewed safety question.
SARCN	3382	Correct a typographical error; this change will correct the fuel pool level alarm setpoints.	
SARCN	3384	Replace Control Room HVAC damper solenoid valves with new solenoid valves to meet requirement of 125 psi minimum. The new solenoid valve will cause the closure stroke time to increase to approximately 50-60 seconds.	This did not introduce an unreviewed safety question. The delay in isolation of control room normal HVAC air flow does not affect performance of any of the system required for safe shutdown. The accumulative 30 day thyroid dose to control room operators would increase by 5.5 percent for a LOCA event and changes to the whole body dose is negligible. This is a very conservative estimate of the dose. The final calculated thyroid dose for the control room operators is estimated to be 9.22 rem. This value is well within the 10CFR50 Appendix A, GDC 19 guidelines (30 rem). (EER 93-HJ-002.)







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3387	Replace Class 1E Batteries which changes the combustible (fire) loading category in zones 8A, 8B, 9A and 9B located in the Control Building at the 100' elevation. This changes the combustible (fire) loading category from Moderate to High.	This UFSAR revision did not introduce an unreviewed safety question. Each of the affected fire zones is provided with fire detection, total flooding CO2 fire suppression systems and are surrounded by 3 hour fire rated concrete block walls and concrete floor/ceilings. The new fire load is less than 2.5 hours equivalent fire severity, and is well within the fire barrier ratings. The probability or consequences of fire will not be increased because the fire will still be contained within the room of origin and will be suppressed by the total flooding CO2 system. For a fire in any one of these zones, the other train will be available for safe shutdown of the plant. Compliance with 10CFR50, Appendix R is maintained because there are 3 hour barriers, detection, and suppression systems. The Appendix R separation rules would permit 1 hour barriers with detection and suppression regardless of the fire loading.
SARCN	3388	This LDCR revises UFSAR commitments to conduct an analysis with "minimum anticipated offsite voltage" to 98.0% (vs. 95) and the "maximum anticipated offsite voltage" to 102.0% (vs. 102.5). Additionally, eliminates the table of results of an analysis and replaces it with a discussion of the objective of the analysis. This is reasonable based on a two year history of performance and operating experience.	This change did not introduce an unreviewed safety question. The effects of variance outside the "anticipated" variance is enveloped in the original safety analysis and is no more likely since the revised anticipated switchyard variance is based on historical performance and operating experience. The availability of SIAS, CIAS, CSAS, MSIS, RAS, AFAS-1, AFAS-2, LOP, & CREFAS to mitigate the consequences of an accident is not dependent upon the "anticipated" switchyard variance. The historical operation within a narrower range of switchyard variance than the original "anticipated range" has and will continue to increase the safety margin.
SARCN	3394	Editorial change. Revises reference to Tech Spec. 3/4.11.1 which was removed in amendments 62, 48, & 34.	
SARCN	3395	This change relocates the 125 V DC Control Power feeds associated with the MSIV/FWIV logic panels from 125V DC Distribution Panels directly to the MCC's battery input bus. Circuit/cable protection is provided by a 20 amp. fuse located in the MCC. To allow for battery maintenance (battery disconnected from the bus) a backup feed is provided from the MCC buses through a normally open 20 amp. circuit breaker. The purpose of this change is to reduce the probability of valve closures due to a loss of 125V DC Distribution panel buses.	This did not introduce an unreviewed safety question. The failure modes of the existing cables, circuit breakers and cabling are the same as the relocated cabling, added fuses and added circuit breakers. UFSAR Section 15.2.4 envelopes all the consequences which could be affected by relocating the Control Power. Review of the Technical Specification Section 3/4.7. and 3/4.8.2 bases found no impacts on the margin of safety relating to the changes performed in this DCP. (DCP 1,2,3XE-SG-163))







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3399	Instead of describing the Headquarters Staff qualifications in the UFSAR, this change states the commitment to the standard alone. The qualifications of Headquarters Staff engineering personnel will be in accordance with ANSI 3.1-1978.	This UFSAR change did not introduce an unreviewed safety question. The margin of safety as defined in the basis for any technical specification will not be reduced as the margins that are defined do not specify the engineering qualifications or training requirements.
SARCN	3400	This SARCN changed UFSAR Section 9.2.1.9 to indicate that a high differential flow alarm indicates a significant loss of water from the Essential Spray Pond System. At PVNGS, the spray ponds serve as the Ultimate Heat Sink. Leak detection is one of the design features required by GDC 44. The UFSAR is revised to more accurately describe the differential flow measurement and alarm.	This UFSAR change did not introduce an unreviewed safety question. The information relied upon by the NRC to evaluate the performance of the Essential Spray Pond System has not been changed. This change will not impact the existing evaluations as they are described in Chapter 15. No physical change is being made to the facility. The basis for Technical Specification 3/4.7.5, Ultimate Heat Sink, requires a 27 day cooling water supply to provide normal cooling. The Technical Specifications require the level to be checked every 24 hours. The system description in UFSAR, Section 9.2.1.9, states that the water level is continuously monitored by an indicator in the control room. There are also local indicators available to determine water level. This change does not effect the ability to monitor the water level in the spray pond.
SARCN	3401	Change 14B.46 objective 1.3 from "a 0.25 inch W.C. negative pressure" to "slightly negative pressure." The 0.25 inch W.C. negative pressure is too demanding and is not necessary.	This UFSAR change did not introduce an unreviewed safety question. Maintaining a slightly negative pressure by exhausting more air than is supplied in the radwaste building still ensures that leakage is into the building. This directs air flows from low radioactivity areas to areas of higher radioactivity which limits the spread of airborne contamination. The radwaste building HVAC system has no safety design basis. Ventilation equipment is classified as NQR. Additionally, equipment performance levels remain unchanged and equipment is expected to perform as designed. Maintaining a slightly negative pressure does not impose additional loads on the radwaste building HVAC system.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3402	UFSAR Tables 8.3-1 and 8.3-3 are revised to reflect the latest revision of the DG load calc, 13-EC-DG-200, Rev. 9.	This UFSAR change did not introduce an unreviewed safety question. The DG cannot increase the probability of an accident occurring; it responds to accidents. There will be no increase in the consequences of an accident because these changes do not compromise the DG's ability to meet its emergency function and the DG loading is within the rating of the DG. An accident signal (LOCA or AFAS) will remove the DG from test mode and places it in emergency mode ready to take on emergency loads if a LOP follows.
SARCN	3404	The deletion of the RP Operations Manager position and its impact on the RP organization. The responsibilities of the RP Operations Manager have been shifted to the General Manager, Site Radiation Protection.	This UFSAR change did not introduce an unreviewed safety question. The Managers, Unit 1, 2, and 3 Radiation Protection now report to the General Manager, Site Radiation Protection. There is no regulatory requirement for the RP Operations Manager position. The deletion of the RP Operations Manager position will have no affect on safety systems as described in Chapter 15 of the UFSAR. There are no technical specification requirements related to the RP Operations Manager position.
SARCN	3405	Dissolved Hydrogen Lower Range Unit 1: 24 cc/kg; Unit 2: 24 cc/kg; Unit 3: 17 cc/kg; Sensitivity: Unit 1: 24 cc/kg; Unit 2: 24 cc/kg; Unit 3: 17 cc/kg. A change in dissolved hydrogen Range and Sensitivity as set forth in UFSAR Table 9.3-4 sheet 2 of 2. This change reflects the most accurate and reliable Range and Sensitivity of the dissolved hydrogen analytical capability, based on the theoretical dissolved hydrogen. In order to allow the analytical capability for the extended range up to 2000 cc/kg, and maintain the sampling and analyses dose rate within the criteria of GDC19, some sacrifice in the low range sensitivity is made.	This change did not introduce an unreviewed safety question. This change reflects the lower end of the PASS dissolved hydrogen analytical capability. The PASS performs no safety function per UFSAR (9.3.2) and is used only to provide information on the severity of an accident involving fuel damage; PASS is NOT utilized to mitigate an accident.
SARCN	3406	Editorial change. Revise the fuel pool high level alarm setpoint shown in Section 15.7.4.1.3 from 138 feet, 6 inches, to 138 feet, 2 inches to make it consistent with section 9.1.3.3.11 and DCP 1,2,3-CJ-PC-021.	
SARCN	3407	This change deletes the conductivity elements and indicators for the spray ponds. These instruments are currently not used for trending spray pond conductivity. Spray pond chemistry is monitored on a weekly basis.	This UFSAR change does not introduce an unreviewed safety question. These instruments are not required to perform any function during plant normal operation or post accident conditions. Loss of spray pond conductivity indication function will not cause any equipment malfunction. Consequences of a malfunction are not increased. The change will not increase the probability of an accident previously evaluated.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3408	Add a diode to the pushbutton input to the 1E annunciator input to allow the flasher reset pushbutton to silence the audible horn. This change will allow the operator to silence the audible horn with the flasher reset switch. This will eliminate the need for the frequent operation of the alarm acknowledge switch which leads to the possibility of disabling the audible horn if operated in the incorrect sequence.	This UFSAR change does not introduce an unreviewed safety question. This change will not create the possibility of an accident previously evaluated. This change will change the operation of the annunciator. It will reduce the changes of the audible alarm failing to alert the operator. This will not reduce the margin of safety as defined in the Technical Specifications because this system is not discussed in the Tech Spec bases.
SARCN	3409	This change to PVNGS Lesson plans will delete the requirement to obtain an acknowledgement in writing from each individual that has received training on the prenatal radiation exposure information contained in Regulatory Guide 8.13. Students receiving prenatal radiation exposure training are required to sign an attendance sheet for that training, and are required to pass a written examination; therefore, an additional acknowledgement in writing is redundant and unnecessary.	This UFSAR change did not introduce an unreviewed safety question. Personnel will continue to receive training on prenatal radiation exposure in compliance with 10CFR19.12. Information contained in Regulatory Guide 8.13 will continue to be utilized to develop the lesson plans for such training and will be provided to trainees. This change will enable the training provided to workers concerning prenatal radiation exposure to be the most current information available. No structures, systems or components are affected.
SARCN	3411	To minimize PASS sample line plugging, the sample tap point was relocated to a higher elevation away from the low point crud trap. Auxiliary Building ESF and Non-ESF sump samples are taken remotely through 1/2" piping to PASS panel. Currently the sample is taken off a low point in the 4" sump transfer line to the TDS tank and has a history of becoming plugged due to trapped crud. This LDCP reroutes the sample tap point to a higher elevation to minimize sample line (N-073-HCDA-1/2") plugging.	This UFSAR change did not introduce an unreviewed safety question. This design will decrease the probability of line clogging and prevent disability of sampling for the key information available to the operation. The FSAR change does not affect the main scope of the surveillance. Overall, these changes will not change the assumptions and methodology of the UFSAR Chapter 15, and 6. This design change does not alter radiological consequences of those accidents evaluated in UFSAR Sections 6 and 15 as direct result. This will result in better operator reaction to the event and thus decrease the consequences of an accident evaluated in UFSAR Chapter 15. PASS system should be operable to take sample and analyze them. Replacement of the portion of the pipe will not affect any safety margin previously defined or violate any requirement. (See LDCP 13-LM-SS-036.)







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3412	The Supplementary Protection System (SPS) is being modified to open the Motor Generator (M-G) set output load contactors to provide a diverse reactor trip device. Anticipated Transient Without Scram (ATWS) requires a diverse scram system; independent of the reactor trip system, from the sensor output to interruption of power to the control rods. The supplementary protection system provides this design function with the exception of a diverse power interruption device. The change interfaces control signals from the SPS Supplementary Protection Logic Assembly (SPLA) panels to the CEDM M-G set control panels to provide a selective two-out-of-four open signal to the M-G set output load contactors.	This UFSAR change does introduce an unreviewed safety question. The interface signal to the M-G set contactors is isolated from the SPLA panels by an isolation relay in accordance IEEE 384. This prevents any impact on the SPS in an event of a failure in the M-G circuitry. Therefore, the consequences of a malfunction of equipment important to safety has not been increased. This change will not increase the probability of any previously evaluated accident. The implementation of this change does not impact the existing functional design/operation of the Reactor Trip Breakers, therefore, the margin of safety is not reduced for any Tech Spec.
SARCN	3413	This UFSAR change updates the UFSAR to incorporate applicable changes due to the Unit 2 Cycle 5 and Unit 3 Cycle 4 reloads into Section 4.3. The proposed changes are to update Section 4.3 of the FSAR, deleting the nominal core physics characteristics of Unit 2 Cycle 4 and Unit 3 Cycle 3, and replacing that information with similar data descriptive of the Unit 2 Cycle 5 and Unit 3 Cycle 4 core designs. The Unit 2 Cycle 5 and Unit 3 Cycle 4 core designs documented in their respective RAR's have been found acceptable. All of the physics values were either bounded by the reference cycle or new analyses were performed.	This UFSAR change did not introduce an unreviewed safety question. The core design changes were previously addressed in the Unit 2 Cycle 5 and Unit 3 Cycle 4 RAR's. The RAR's state that the Unit 2 Cycle 5 and Unit 3 Cycle 4 reload safety analyses are either bounded by the reference cycle or have been reanalyzed and found to be in compliance.
SARCN	3415	This UFSAR change reflects current reload designs in Sections 4.4, 6.3 and 15.0. Changes were made non-cycle dependent.	This UFSAR revision did not introduce an unreviewed safety question. Since the changes incorporate information covered by the 50.59 reviews for the individual reload analysis reports, no unreviewed safety question is involved.
SARCN	3416	Editorial change. Insert Operations QA Plan into FSAR 17.2	
SARCN	3418	Editorial change. Reinsert CESSAR reactor interface requirements evaluation and present-tense wordings.	
SARCN	3420	See Study 3420.	
SARCN	3421	Organizational change. Change the STA supervisor as described in subsection 13.1.1.2.1.3.3.1.1 (UFSAR Rev. 5). The associated reporting relationship is detailed in Figure 13.1-4. The organizational reporting relationship is specified in subsection 18.I.A.1.1.	This UFSAR change does not introduce an unreviewed safety question. This organizational change does not increase the consequences of an accident previously evaluated. This change does not affect equipment important to safety.
SARCN	3423	Editorial change will delete out-dated wording from the first FSAR submittal stating that only preliminary structural loading and settlement data are available and that settlement instrumentation data will be presented in a future FSAR amendment.	







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SARCN	3424	Editorial correction to make the text of Section 2.2.3.1.4.2 consistent with UFSAR Table 2.2-5.	
SARCN	3426	This request revises UFSAR Figure 2.5-92 to reflect the correct identification numbers and locations for the Subsidence Network Benchmarks. Building/structure settlements are not discussed in the Tech Specs. Tech Spec 6.8.1 requires only the implementation of a Settlement Monitoring Program. The intended function of the Settlement Monitoring Program will remain unchanged.	This UFSAR revision does not introduce an unreviewed safety question and this change does not affect the settlement monitoring instrumentation as specified in the UFSAR. Any accidents previously evaluated will not be affected.
SARCN	3429	Clarify post accident sampling training frequency in UFSAR Section 9.3.2.7; "Retraining of operators for post-accident sampling is scheduled at a frequency of once every year." Per Procedure 93AC-0LC01. Palo Verde SSER 7-184, Page 22-5, Criteria 10 in part states "Retraining of operators for post-accident sampling is scheduled at a frequency of once every six months."	This UFSAR change did not introduce an unreviewed safety question. UFSAR Section 9.3.2.7 (process auxiliaries) does not address a specific retraining frequency for PASS operators. Criteria 10 is met at a frequency of once every year. The retraining of PASS operators is not evaluated as a contributing factor in the accident analysis sections. After several years of operating experience and training, most PASS operators are very familiar with the PASS system and its proper operation.
SIMSCN	93-000650	SIMSCN 93-000650 designates the fire type of Analysis Boundary barriers based on Engineering evaluation. The SIMSCN clarifies the barriers governing regulatory requirement. This, in turn, defines the level of surveillance, and compensatory measures PVNGS applies to that barrier.	This SIMSCN did not introduce an unreviewed safety question. The Analysis Boundary barriers were defined in the Appendix R reconstitution effort. The referenced SIMSCN is an administrative change only. Appendix R barriers are those necessary to ensure the minimum level of fire separation is maintained and controlled and the safe operation of the facility can be assured. These Analysis Boundary barriers will be treated identical to Appendix R barriers with respect to surveillance and impairment requirements. The Fire Hazard Analysis evaluates and proves the safe shutdown capability of a fire occurring in any given fire area. The downgrading of various barriers from Former Tech. Spec. (FTS) to Appendix A will not affect the barriers hourly rating. The relaxing of administrative controls for a select group of barriers does not increase nor decrease the probability of a malfunction of a barrier. The purpose of the barrier remains unchanged, to mitigate to some degree (depending on the hourly rating of the barrier), the consequences of a fire in one area. PVNGS committed to complying with the CE Technical Specifications. PVNGS has conservatively continued to apply the same surveillance requirements and compensatory actions to these FTS barriers.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SMOD	01-SM-NA-003	This SMOD will cut openings in the top of the 13.8 KVA switchgear enclosures to provide better access for cleaning, inspection, and maintenance of the bus.	This SMOD does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. The access openings have watertight covers. Equipment important to safety will not be affected by this change. The equipment is non-quality related equipment.
SMOD	01-SM-ZA-008	This SMOD installs seals in penetrations in Aux Build. The seal installation will prevent migration of noble gas to low radiation areas.	This SMOD does not introduce an unreviewed safety question. This installation does not increase the consequences of an accident previously evaluated. This installation will not increase the probability of malfunction of equipment important to safety. Flexible silicone foam/elastomer is used as the sealing material. The penetrating elements (conduit, pipe, sheet metal, duct work) through the penetrations have zero axial and lateral movements.
SMOD	02-SM-ZA-006	This SMOD installs air tight seals in verticle pipe chases in Auxiliary Building to prevent noble gas migration through the pipe chases to low radiation areas.	This SMOD does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. This installation will not adversely affect the ability of quality related structures, components, and or systems to perform their function. This changes increased the effectiveness of ESF ventilation by providing seals between uper elevations of Aux. Building and ESF equipment compartments. Flexible silicone foam is used as the sealing material and the seal supports are designed as seismic category IX.
SMOD	03-SM-DG-021	This SMOD adds a time delay relay to prevent the bearing temperature controller trip for DG 3B#2 main bearing during an LOP. The time delay relay functions to block the trip function of the temperature controller for DG 3B#2 main bearing in a loss of power event. This is required to prevent loss of DG control air and invalid alarm annunciations. The controller is fed by non-class 120 vac and would trip on a LOP, causing an invalid bearing high temperature alarm and trip. This SMOD will block the controller trip function (this is a non-emergency mode trip and would only cause operator confusion.	This SMOD does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. This change does not affect the DG in the event of emergency operation. This change has no affect on Technical Specifications, therefore the margin of safety will not be increased.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SMOD	03-SM-SI-006	This SMOD replaces limitorque motor actuator spring pack with a heavy duty spring pack on valves J-SIA-HV-604 & 609. This will increase operator force output margin.	This SMOD does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. This change will increase system reliability, therefore this does not increase the probability of a malfunction of equipment important to safety. This change will enhance the actuators capability to overcome previously considered malfunctions of mechanical binding and does not affect actuator power loss. Therefore, consequences of malfunctions are not increased.
SMOD	03-SM-SQ-028	This SMOD removes the hygrometer from containment atmosphere radiation monitor. The design of the SMOD does not affect any of the circuits required for the monitor to perform its function of detecting radiation and providing an output alarm at a high level.	This SMOD does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. There is no applicable Technical Specification, therefore, there is no affect on the margin of safety.
SMOD	03-SM-ZI-007	This SMOD removes the existing roof overhang at the south entrance of corridor bldg entry lobby area and installs new siding, girts, and parapet to match the existing building exterior.	This SMOD does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. No equipment important to safety will be affected. Safety margins established for Tech Specs will not be affected.
SMOD	03-SM-ZY-004	This SMOD installs a new chain link fence to extend the existing radiologically controlled area (RCA). This is done to facilitate the transfer and storage of radioactive material that exists through the equipment hatch in the containment building.	This SMOD does not introduce an unreviewed safety question. The probability of an accident previously evaluated will not be affected by this change. No equipment important to safety will be affected by this change. This fence is non- quality related. This change does not affect the margin of safety as defined in the Technical Specifications.
SMOD	03-SM-ZY-014	This SMOD will design and install an underground ductbank to support the routing of communication cables and 480Vac power cables to two existing trailers located plant south side of the Unit 3 Essential Spray Ponds. Site Mod 03-SM-ZY-014 provides the design for ductbank to allow unscheduled communication and non-safety related 480Vac construction power to be routed to two existing trailers that have been located plant south side of the Unit 3 spray ponds. The design involves the installation of a non-safety related ductbank from manhole AEZV08NKQM20 to the trailers location. The ductbank will run under the existing site roadway, and terminate at the trailers location. The ductbank will contain two four-inch rigid steel ducts for communication cables.	This SMOD did not introduce an unreviewed safety question. The change involves the design and installation of an underground non-safety related power/communication ductbank. The ductbank does not interface with any safety related system. Excavation for the ductbank will temporarily expose some underground utilities, but these will not be modified by the change. The changes will not increase the probability of any accident previously evaluated. The excavation will not affect any previous excavations performed for the power block or Essential Spray Ponds nor impact the spray ponds. The new ductbank will not affect any safety related systems or equipment.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SMOD	1,2,3 SM-SG-035	This SMOD adds two each pressure taps to test Atmospheric Dump Valve (ADV) actuator. These pressure taps are used to temporarily connect differential pressure transmitters, pressure gauges, or pressure transmitters for functional testing. Each pressure tap consists of an (manually operated) instrument valve and a tubing cap. The valves and caps are connected to the equalizer line on each ADV actuator cylinder. The instrument valves remain closed and the tubing caps remain in place except when functional tests are being performed. Test pressure taps were added as follows: The existing elbow fittings at top and bottom of the existing equalizer lines on the ADV actuator cylinders were replaced with tee fittings, and an instrument valve and tubing cap were added to each tee fitting.	This SMOD did not introduce an unreviewed safety question. UFSAR Table 10.3-4 evaluates ADV failing open or closed and concludes that neither failure will result in any unacceptable consequences with regard to plant safety. The addition of two test pressure taps, with two instrument valves, to each of four ADVs on a unit, would increase the probability of a failure due to operator error. However, this Site Modification includes a requirement that the positions of these pressure tap instrument valves, as well as the existing valves on the actuator cylinder equalizer lines, be controlled by procedure. This change does not alter any of the input parameters or assumptions made for the analyses of accidents involving an ADV. Since an ADV with this Site Modification installed is Seismic Category I and environmentally qualified, the ADV is expected to remain intact and is not expected to have any effect on neighboring equipment should a design basis accident occur.
SMOD	1,2,3 SM-NK-001	This SMOD exchanges upstream power sources to battery chargers E-NKN-H21 and E-NKN-H17. When modified, loss of either E-NAN-501 or E-NAN-502 would not leave E-NKN-M46 (125VDC control center) without an energized battery charger.	This SMOD did not introduce an unreviewed safety question. Chapters 6 and 15 of UFSAR do not discuss the non IE DC battery system. The non IE battery is not discussed in Section 8.3.2.1 of UFSAR. There is no Tech Spec 3/4.8.2 margin established for a non IE DC battery system.
SMOD	1,2,3 SM-PE-001	This change will lengthen carbon brushes 1/8" and add wear pad on top to provide for longer brush life on Class IE emergency diesel generator. This minor change to the generator will increase the reliability of the D.G. as the new brush is better than the O.E.M. part.	This SMOD did not introduce an unreviewed safety question. The DG is analyzed to mitigate the consequences of loss-of-power or loss-of-power in conjunction with an ESF actuation. No change to the DG set is made which would compromise or change these previous evaluations. The availability of the emergency diesel generators will be enhanced as replacement of the carbon brushes will be less frequent.
SMOD	1,2,3 SM-SG-025	This SMOD is rerouting the Atmospheric Dump Valve (ADV) accumulator supply line in order to install two check valves, a test tap and to eliminate the bidirectional flow the accumulator isolation valve sees.	This SMOD did not introduce an unreviewed safety question. The operability of the ADVs and the nitrogen system will not be changed. The ADVs are part of the safe shutdown system of the units as per the requirement of UFSAR 10.3.1.1.A and accident evaluations 15.1.4, 15.3.1.1, 15.4.1.2 and 15.6.3.2. An ADV failure would not increase the probability of an accident previously evaluated.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SMOD	1,2,3 SM-SI-026	Reevaluation of the torque required to operate the two Safety Injection valves J-SIA-HV-0604 and J-SIB-HV-0609 under reduced differential pressure across each valve, results in a reduced torque setpoint. The reduction in the torque setpoints also reduces the potential for overstressing the valve and possible valve damage.	This SMOD did not introduce an unreviewed safety question. The reduction in the required torque to operate the valves with reduced differential pressure across the valves will result in reduced valve stresses. The analyzed thrust valves ensure the subject MOVs can perform their safety function under design basis conditions. The basic operation and function of the system remains the same.
SMOD	1,2,3-SM-QM-004	This SMOD allows the control room nuisance alarm to clear alarm points QMYS11/12 when panels 13-E-QMN-C05A/B are off. This change adds a switch, relay and indicating light to the solid radwaste heat trace panels 13-E-QMN-C05A/B. The switch allows the control room nuisance alarm (PMS points QMYS11/QMYS12 to the heat trace panel trouble alarm) to be cleared when the two panels are off (they are normally in this state). The alarming function is not changed when the panel is in service, except to add an additional alarming contact to PMS points QMYS11/QMYS12.	This SMOD did not introduce an unreviewed safety question. No portion of the solid radwaste heat trace system is considered in the probability or consequences of an accident previously evaluated. This change cannot have any effect on accident analysis. The heat trace system is not an ITS system nor could a failure of heat trace system cause a malfunction of the solid radwaste system in an ITS manner (failure of piping, tanks, pumps). Therefore, the probability or consequences of a malfunction of equipment important to safety will not be increased.
SMOD	1,2,3-SM-ZA-009	This SMOD covers 9 wire mesh gates with sheet metal and addition of wire mesh covered gates to control air flow. This consists of modifications to existing gates reducing the free surface area for air movement through the gate and/or enclosure surface in order to control free flow of noble gases	This SMOD does not introduce an unreviewed safety question. These gates are not connected to equipment nor are they required for safe shutdown of the plant. The probability of an accident previously evaluated will not be increased. This change does not affect the Tech Specs, therefore the margin of safety will not be reduced.
SMOD	1,2,3SM-ZJ-008	This SMOD revises a portion of the Corridor Building Vertical Bracing System on column lines JG and J3.1 to allow for the installation of manddoors. Associated with these structural modifications are: architectural modifications to the siding, doors, interior walls, and roofing; electrical changes to lighting and associated conduit and HVAC changes to fired dampers, air diffusers and air ducts.	This SMOD does not introduce an unreviewed safety question. This will not increase the probability of an accident previously evaluated. The Corridor Building is a seismic category II building and is, therefore, not associated with any safety related system. The probability of a malfunction of safety related equipment is not changed. The margin of safety relative to the Corridor Building seismic behavior is unchanged so there is no reduction in margin of safety which forms the basis for any Tech Spec describing safety related systems, components or structures.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SMOD	1,2SM-DG-008	This SMOD will add pushbutton ESPB-2 to simulate diesel generator emergency mode ESF start. Add switch EMDFT to defeat emergency mode interlocks to take diesel generator out of test. Additions are being made to the diesel generator engine control panel, diesel generator control building, and power block. Switch EMDFT, if left in the on position (key left in), would defeat emergency mode interlocks, disabling automatic LOP starts. Automatic ESF and manual starts wouldn't be affected. The key can only be removed in the off position. The change provides an improvement in testing of the diesel generator.	This SMOD did not introduce an unreviewed safety question. The FSAR has already determined that single diesel generator failures have no effect since a redundant diesel generator is available in each unit. There is not increased probability of a failure or accident. The probability of equipment malfunction (the diesel generator) is equal to the probability of human error on the diesel generator on the component level. The EMDFT switch has been qualified by the E.Q. group seismically and environmentally.
SMOD	1-SM-PN-002	This changed control logic in the inverters to allow DC bus spikes to be filtered and not shutdown the inverter unless abnormal voltage is sustained.	This SMOD did not introduce an unreviewed safety question. Failure of design change would only lose the inverter as the primary source of power with the loads now transferred to the regulator. DC spikes will not be allowed to reach the circuitry to shutdown the inverter and inverter loads will be transferred to the regulator if inverter output is out of specification.
SMOD	1-SM-QD-004	This SMOD adds emergency light at El. 100' of stairway south of Train A switchgear room. Emergency light is added to provide adequate illumination along safe shutdown path for plant personnel safety.	This SMOD did not introduce an unreviewed safety question. The probability/consequences of an accident previously evaluated is not increased. Equipment involved is non-quality related. Addition of light will not increase (and may reduce) the probability and consequences of emergency lighting equipment malfunction, since existing equipment is not affected.
SMOD	1-SM-ZR-004	The SMOD adds one lockable gate per unit to restrict entry into a Locked High Radiation Area (LHRA). Presently, the Power Control Module Room is a LHRA because the access hole to an LHRA is unsecured. The addition of the gates will allow unrestricted entry into the Power Control Module Room. The gates are not required to provide shielding.	This SMOD did not introduce an unreviewed safety question. The gates are not Safety Related or Important to Safety with respect to the ability of the plant to achieve or maintain Safe Shutdown. This SMOD has no effect on any Safety Related or Important to Safety systems or equipment, and as such, does not create the probability of any new type of accident.
SMOD	1SM-RC-006	This SMOD adds an elapse time meter for RCP to document/monitor the run time of the reactor coolant pumps.	This SMOD does not introduce an unreviewed safety question. This does not increase the probability or consequences of an accident previously evaluated. The elapse time counters are added in the control circuitry that is bypassed after a maximum of two minutes after starting of the RCPs and will not affect the operation of the RCPs in normal operations. The margin of safety as defined in the Tech Specs will not be reduced.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SMOD	2,3-SM-ZJ-003	This change will install a pressure-sensitive door gasket for bullet proof door J303. The gasket material is equivalent to the existing weatherstrip for air leakage and exceeds design requirements for fire rating.	This SMOD did not introduce an unreviewed safety question. The door gasket seal provides the same function of the existing weatherstrip and is an acceptable replacement. The door gasketing material meets the design requirements of FSAR Section 6.4.
SMOD	2-SM-QM-011	This change will provide partial closure of Site Mod. QM-011 required to support the addition of heat trace control panels 13-QMN-C06A&B. This partial closure permits the use of the sampling panel installed under DCP 13-FJ-ZZ-010. This partial closure will allow compliance with Technical Specification 3.3.3.8 Action b while the remainder of the Site Mod is installed and tested.	This SMOD did not introduce an unreviewed safety question. Operation of the radiation monitors is unaffected as the existing heat tracing installed under a temporary modification will remain in place. Heat trace panel operation will be normal with the unused controllers secured until their associated heat tracing is installed. These changes will not affect the operation of the equipment but will assure alternate sampling capabilities until the implementation and testing of the remainder of the Site Mod. This will not affect the operation of any of the monitors or sampling panels.
SMOD	2-SM-ZT-012	The Turbine Maintenance Facility is being remodeled to accommodate the "Fitness for Duty Office." The remodel involves only minor wall, door and ceiling changes to the immediate area. Electrical outlets and light fixtures are being relocated and reused. All systems within the boundary of this change are NQR.	This SMOD did not introduce an unreviewed safety question. All of the systems in the Turbine Maintenance Facility are considered NQR. The closest system that would be a concern is the Fire Protection system. The Fire Hose System exists and remains unchanged. The Fire Protection Sprinkler system is being installed as new work under Site Mod 01, 02, 03-SM-FP-015 and will be modified for this remodel prior to going into service. There are no shared circuits for any equipment important to safety.
SMOD	2SM-DG-025	This SMOD "Replacing the Existing Lube Oil and Jacket Water Temperature Control" is to install a new type temperature control switch for the lube oil and jacket water systems on the Diesel Generators for Unit #2 only. This change only affects the type of temperature sensing switch used to control the standby temperatures of the DG lube oil and jacket water systems to insure the DG's ability to start in the required ten seconds.	This SMOD did not introduce an unreviewed safety question. The modification will be performed on only one train at a time, with the other DG remaining in service during Modes 5 or 6. Each DG is a completely independent of the other unit DG, the change of the temperature control switch for the lube oil/jacket water standby pumps and heaters for one train will have absolutely no effect on the opposite train systems. The change only affects one train at a time and no other safety related equipment.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
SMOD	2SM-ZT-012	Remodel the Turbine Maintenance Facility to accommodate the new Fitness For Duty station. The modification includes replacing Air Handling Unit 2MHSNA003 and Exhaust Fan 2MHSNJ10 with air Conditioning Unit 2MHSNA53.	This SMOD did not introduce an unreviewed safety question. The Turbine Maintenance Facility does not contain any safety related electrical systems or Engineered Safety Systems described in the UFSAR. There are no systems or procedures included in the Turbine Maintenance Facility that would cause any change to the consequences of an accident.
SMOD	3-SM-DG-007	This SMOD will change the annunciator nomenclature on 3 windows to be consistent with actuation relays on local diesel generator annunciator, JDGA(B)B01. Three annunciator windows on the local panel, JDGA(B)B01, will have their nomenclature changed to more closely mimic the nomenclature of the relays which bring them in. This change is a revision to the engraving on three annunciator windows at the local DG panel ONLY. The new engraving is consistent with the actuation relay nomenclature for ease of understanding.	This SMOD did not introduce an unreviewed safety question. No accident analysis is affected. Engraving of annunciator windows is not used for the basis of any Technical Specifications.
SMOD	3-SM-DG-014	Minor wiring change to reinstate the DG overspeed trip switches to the Emergency Mode electrical trip circuit as originally designed. DG will still trip mechanically, electrically, or pneumatically in Emergency or Test Mode as originally designed. The redundant DG remains in service.	This SMOD did not introduce an unreviewed safety question. The redundant DG remains in service. Overspeed trip is previously evaluated in FSAR. DG overspeed trip is in force in the Emergency Mode. This change does not alter this function.
SMOD	3-SM-ZM-002	This SMOD requires that existing beams at el. 140'-0" of MSSS Bldg. be notched, and that the existing handrail at el. 120'-0" & 140'-0" of the above building be made removable to eliminate interferences during the removal of the mainsteam and feedwater isolation valves.	This SMOD did not introduce an unreviewed safety question. The notched beams and the removable handrail have no effect on the operability of any safety related, safe shutdown or Important to Safety equipment. The consequences of an accident previously evaluated will not be increased. The notched beam flanges will not affect the structural integrity of the existing beams.
SMOD	3-SM-ZR-003	This change will remove a 39" x 116" x 24" block from the top of the radwaste high level storage bay south wall. The purpose of the block removal is to create an access area to move radwaste containers into and out of the high level bay. This change is non-safety related and non-quality related. Compensatory measures will be implemented by site personnel, such as fire watches, portable air monitors, temporary power to various "Important to Safety" equipment.	This SMOD did not introduce an unreviewed safety question. Removing the block from the high level bay storage wall does not affect the probability of a previously evaluated accident. Important to Safety equipment will be provided for any affected compensatory measures to prevent their increased probability of malfunction. It will not effect any margin of safety as defined in the basis of any Technical Specification.







DOC TYPE	DOCUMENT NUMBER	DESCRIPTION	SUMMARY
SMOD	SM-PB-001	This SMOD physically relocates the bus duct interior/exterior temperature sensors to a location more in line with the original design.	This SMOD did not introduce an unreviewed safety question. Procedures, tests, experiments, accidents or malfunctions described in the FSAR are not altered. No changes are made to Technical Specifications or margin of safety.
Study		The accelerated oxidation rates for PVNGS Unit 1 Cycle 4 were observed as a result of surveillance testing described in the UFSAR. The rods showing higher than expected oxide thickness were fabricated from Zircaloy-4 cladding having normal composition.	This study did not introduce an unreviewed safety question. The Chapter 6 and Chapter 15 UFSAR safety analyses remain valid and bounding. Although there is a small increase in the probability or consequences of an accident or malfunction of equipment important to safety because the high burnup, low power rods that have the additional oxide are not the same rods that would be limiting or subject to failure in Chapter 6 or Chapter 15 accidents, the additional oxide does not require any changes in the 1.24 DNBR or 21 kw/ft peak linear heat rate safety limits for the reactor core, or in the 13.5 kw/ft LCO peak linear heat rate limit.
Study		A number of fuel pins from PVNGS Unit 1 Batch D fuel are projected to exceed 52,000 MWD/MTU burnup prior to exceeding 401.9 EFPD. Because U1C4 operated with larger capacity factors than previously anticipated, it is projected to achieve a burnup well beyond the nominal design of 400 EFPD. This will result in approximately 88 fuel pins exceeding 52,000 MWD/MTU by the time the core reaches a burnup of 426 EFPD.	This study did not introduce an unreviewed safety question. The current Chapter 6 and Chapter 15 UFSAR safety analyses remain valid and bounding. The NRC has determined that existing methodologies are adequate for predictions of the length of time for cladding collapse, fission gas release, thermal conductivities, fuel melting temperatures, fuel swelling, cladding deformation and rupture, and fuel assembly length change and shoulder gap clearance change. The cladding will have sufficient ductility over the extended burnup to withstand additional strain without failure. Previous inspections of CE fuel have indicated that no significant fretting wear has occurred for high burnup fuel. The overall probability of pellet-cladding interaction failure may actually decrease. The fuel pin burnups do not result in any changes in predicted core performance relating to the 1.24 DNBR or 21 kw/ft peak linear heat rate safety limits, or in the 13.5 kw/ft LCO peak linear heat rate limit.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Study	13-MS-A78	This study provides that the steam generator nozzle dams are replaced with a new nozzle dam system supplied by Nuclear Energy Services (NES). A nozzle dam design utilizing the nozzle clamp rings would permit a higher RCS water level during installation, thereby reducing worker exposure and challenges to the shutdown cooling system. The NES Nozzle Dam System for CE steam generators utilize quick throw lock pins that engage openings in the existing steam generator nozzle clamp rings for restraint. Therefore, no nozzle modifications are required.	This study did not introduce an unreviewed safety question. In response to Generic Letters 87-12 and 88-17, APS addressed operator and system response to a Loss of RHR Event at PVNGS. Several issues were evaluated with regard to the installation of steam generator nozzle dams. One item addresses the sequence for installation of nozzle dams to assure that a hot side vent is established prior to blocking both RCS hot legs with nozzle dams. The implementation of the NES nozzle dams does not impact the sequence described in these procedures. Procedures were also revised or developed to provide increased operator awareness during mid-loop operations. The low alarm water level will increase from elevation 101'5" to 101'7" and the low-low alarm setpoint is increased from 101'4" to the 101'5" elevation. Consequently, the probability of a Loss of RHR event during nozzle dam installation is not increased by the proposed nozzle dam change. Since nozzle dam structural integrity has been demonstrated, the proposed change will not increase the consequences of an accident evaluated in the UFSAR or the consequences of a Loss of RHR event. The use of NES nozzle dams during Mode 6 operation will provide increased margin with regard to Technical Specification 3/4.9.8, "Shutdown Cooling and Coolant Circulation" by permitting a higher RCS water level during installation and removal of the nozzle dams.
Study	3420	The PVNGS Unit 2 Cycle 5 (U2C5) fuel reload consists of a new reactor core design with 96 new fuel assemblies and 145 previously burned fuel assemblies, all physics and safety analyses to support the reload and the required start-up testing necessary to verify the reload analyses results.	This study did not introduce an unreviewed safety question. All accidents evaluated in the UFSAR were reanalyzed by ABB CE for the Unit 2 Cycle 5 reload. No accident event frequency or risk significant sequences have changed from the U2C4 reload accident analyses. Core physics parameters used as input to safety analyses were recalculated for the U2C5 design and bounding uncertainties were applied. Reanalyzed event results, as presented in the Unit 2 Cycle 5 Reload Analysis Report, are bounded by the U2C4 results. Also, fuel assembly design basis was reviewed and found acceptable. Stress and load design requirements were reviewed and found acceptable for the reactor vessel internals, new and spent fuel racks, and fuel rack embeddings.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Study	85CP-9BT28	This study reworked the Steam Generator Secondary Side Chemical Cleaning Process. The primary purpose of chemical cleaning is to remove bridge (i.e. deposits "bridging" between adjacent tubes) and tube deposits. If not removed, these deposits may become initiation sites for tube secondary side localized Intergranular Attack (IGA) and subsequent Intergranular Stress Corrosion Cracking (IGSCC) during normal full power operation. Many utilities have performed chemical cleanings using the EPRI/SGOG process with no known adverse effects. The chemical cleaning process dissolves iron, copper, nickel, chromium, manganese, zinc and other metals from deposits.	This study did not introduce an unreviewed safety question. Three separate dissolution tests were performed as part of the PVNGS chemical cleaning qualification program. Total corrosion is low and within the established corrosion allowances. Structural integrity is not affected by the cleaning. Long term degradation due to the chemical cleaning does not occur. There are no permanent changes to the secondary system as a result of this process. Cleaning will take place during mode 5 conditions. The solvent application temperatures for the Iron Step(s), Copper Step(s), Rinses and Passivation, are less than Tcold (250 degrees F). The crevice cleaning step is applied at 250 degrees F.
Study	ECE-EC-A025	Substitution Evaluation for a 1" Dresser 600# Carbon Steel Gate Valve with a 1" Dresser 600# Carbon Steel Globe Valve. This is a Substitution Evaluation for EQID's 13P-ECB-V198 & 13P-ECP-V104, which are the Essential Chilled Water Expansion Tank Drain valves. Unit 1 valve 1P-ECA-V198 has leakage by the seat.	This Study did not introduce an unreviewed safety question. The globe valve also provides the Isolation and draining capability that the gate valve did for the Essential Chilled Water Expansion Tank. This valve is normally in the closed position while the system is in operation. Also since there are A & B trains, there is a 100% backup capability provided if one train is lost. The required cooling can still be accomplished. The globe valve is considered an equivalent substitute for the gate valve for tank isolation and drain. The substitute globe valve is also manufactured to the ASME Section III Code.
Study	ECE-ZZ-A184	Deletion of components from the EQL based on the TENERA EQ List Reduction Study and other additional APS evaluations which are documented in the ECE.	This study did not introduce an unreviewed safety question. The methodology used in the deletion of more components from the reconciled EQL utilized various sections of the UFSAR and Emergency Operating Procedures. The revision does not impact or change any procedure described in the UFSAR. Only the change on the containment sump level elements (JRDELE0410 and 411) makes a change in facility as described in the UFSAR. The EQ List Reduction Study concluded that these elements are not the key variable for the purpose stated in Regulatory Guide 1.97. There are other alternate and redundant means to perform the intended post-accident monitoring function.
Study	QA Plan	This modification makes purely administrative changes based on organizational restructuring or clarifications. Annual update of the Operations Quality Assurance plan.	This document did not introduce an unreviewed safety question. There are no changes in the way the facility is being operated. No impact on equipment important to safety.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
Study	U1C7	Extension of U1C4 operation beyond 426 EFPD (to 439 EFPD). The major areas that were evaluated were a) operation of Batch D fuel rods with higher than anticipated oxide thickness, b) operation with approximately 156 fuel pins beyond the 52,000 MWD/MTU limit, and c) RAR data. The reload safety analysis and fuel performance data were evaluated and compared to the original safety analysis and fuel performance data used for the U1C4 RAR to assure that the original RAR remains bounding.	This study did not introduce an unreviewed safety question. The current Chapter 6 and Chapter 15 UFSAR safety analyses remain valid and bounding. The safety evaluation performed by ABB-CE determined that the mechanical design criteria specified in Section 4.2 of the UFSAR will continue to be met with the increased oxide layer thickness projected at the end of Cycle 4. Operation with approximately 156 fuel pins above 52,000 MWD/MTU does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety. Maximum predicted pin burnup is approximately 53,300 MWD/MTU at 439 EFPD. The conclusions of the RAR have been reviewed for extended operation to 439 EFPD and remain valid based on review of pertinent input data. The increase in core burnup to 439 EFPD does not result in any reduction in the margin between core operating parameters and the safety limits prescribed in the Unit 1 Operating License.
Study	U2C5	This U2C5 Study provides for modification of the PVNGS Unit 2 Cycle 4 (U2C4) Core Operating Limits Report (COLR), located in back of the Technical Specifications. This COLR will be replaced with the Unit 2 Cycle 5 (U2C5) COLR. The documents are identical except for redrawing the MTC Curve and changing the cycle number from 4 to 5.	This U2C5 did not introduce an unreviewed safety question. The change in MTC magnitude does not involve the addition of a new physical phenomenon to be considered in the safety analyses or a change in plant physical configuration and does not affect event initiators. The change in the MTC curve from -2.8 E-04/°F to -3.1 E-04/°F at 0% power and from -3.5 E-04/°F to -3.8 E-04/°F at 100% power has been incorporated into the Unit 2 Cycle 5 reload design analyses which utilizes methods previously approved by the NRC.
Study	WO 628752	During the removal of Control Element Assemblies (CEA) during the Unit 1 refueling outage, one CEA was not latched and was thus left behind in the core. It is now necessary to fabricate a tool to grasp the CEA and remove it to allow refueling operations to continue. It is not possible to lower the UGS lift rig to capture this left CEA due to the risk that the dangling CEA fingers may not re-enter the fuel posts. Fabricate a tool which will be manually attached to the CEA at which point the CEA will be raised to the level of the other CEAs and then secured in that position.	This study did not introduce an unreviewed safety question. We are currently in Mode 6 with sufficient shutdown margin which will preclude inadvertent criticality during CEA movement. Even if the CEA were to drop during initial lifting, it would still be within its guide tubes and would benefit from the hydraulic dashpot located below the inserted CEA. Dropping the CEA would only add negative reactivity. With the Reactor Coolant System at refueling boron levels, it is safe to remove the CEA's from the core. Dropping the CEA within its guide tubes will not cause fuel damage. The Work Order in question does not require alteration of water level to accomplish this work.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
TMod	1-93-HS-003	This TMod allows the installation of temporary fans in the Essential Spray Pond Pump House. These fans are considered a compensatory measure to backup the existing Essential Spray Pond Pump House Exhaust Fans (HSAJ001 and HSBJ001). This T-Mod will ensure the availability of the ESP Essential Exhaust Fans to perform its support function in the event of a degraded voltage condition.	This change did not introduce an unreviewed safety question. The probability or the consequences of an accident analyzed in UFSAR Chapter 15 remains unchanged. The maximum temperature in the pump house will still be maintained below maximum temperature specified in the USFAR since the ESP Pump House Exhaust fans are still considered operable. This T-Mod also has no effect on the site or public dose rates. The ESP Pump House Exhaust fans will still be considered operable, therefore, the installation of this T-Mod will not effect the safety margins given in the Technical Specifications.
TMod	1-93-IA-011	This TMod provides a jumper around the instrument air containment isolation valve, IAA-UV002. The purpose is to ensure a continuous supply of instrument air during Mode 6 refueling while activities that would impact this supply, such as the electrical train outage, are allowed to continue. A loss of power to IAA-UV002 will cause this valve to close.	This TMod did not introduce an unreviewed safety question. The instrument air system is not a part of the accident scenarios described in the UFSAR and this T-Mod will only be in place during refueling activities. This T-Mod is in compliance with tech specs by maintaining one automatic isolation valve operable. The margin of safety will not be reduced.
TMod	1-93-IA-013	This TMod provides a jumper around the instrument air containment isolation valve., 1JIAAUV0002, from valve 1PIANV295, 2" line 1PIANL068 to ensure a continuous supply of instrument air during Mode 6 refueling while activities that would impact this supply, such as the electrical train outage, are allowed to continue. A loss of power to 1JIAAUV0002 will cause this valve to close.	This TMod did not introduce an unreviewed safety question. This TMod will be in place only during refueling activities. This TMod is in compliance with technical specifications since no core altering activities or movement of irradiated fuel will be allowed while this TMod is installed.
TMod	1-93-SH-016	Reducers were added to fire suppression for the charcoal filters internal spray nozzles outside connections to facilitate the hookup of 1-1/2" fire hose from the nearest available Fire Hose Station to supply the required water to extinguish the fire. These filters are located in Fuel, Auxiliary, Control and Turbine buildings.	This T-Mod did not introduce an unreviewed safety question. The installation of these reducers is acceptable based on the considerations of limited combustible loading of the filter units, fire characteristics of the charcoals, available detection system, NQR deluge piping. NRC and ANI acceptance of the design concept of manual fire fighting using 1-1/2" fire hose, and more water supply available than required. This change will not affect the accident analysis. Fire suppression system is not included in the Technical Specification.
TMod	2-93-CM-019	This TMod replaces a portion of the piping from the high TDS sump to the chemical waste neutralizer tank, which contains a leak, with a CPVC plastic pipe spool. The CM system temporary piping will continue to transfer the chemical waste to the chemical waste neutralizer tanks.	This TMod does not introduce an unreviewed safety question. The possibility of an accident or malfunction of a different type than previously evaluated will not be created. The margin of safety as stated in Technical Specifications will not be reduced.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
TMod	2-93-CW-013	Fan assembly and shroud of 2MCWNA02A were removed from cooling tower 2 in Unit 2. The remaining hole is covered with a plywood platform. This TMod justifies unit operation in this configuration. A plywood platform was constructed over the opening and will remain in place until a new cooling tower fan is installed.	This TMod did not introduce an unreviewed safety question. No accident evaluated in Chapter 15 of UFSAR assumes that all cooling tower fans will be in operation during any accident. The CW system has no safety functions. The probability of a malfunction of equipment important to safety will not be increased by removing from service one out of 16 fans on one cooling tower. The CW system is not included in the Technical Specifications.
TMod	2-93-DW-028	This TMod installs a line off of check valve DFWN-V050 to allow supplying 100 psia water at 100 gpm for use during chemical cleaning of the steam generators during the upcoming Unit 2 mid-cycle outage.	This TMod did not introduce an unreviewed safety question. The Demineralized Water System (DWS) serves no safety function and has no safety design bases. The system supplies makeup to numerous cooling water systems and has no Technical Specifications related to it. The DWS has 2 Demineralized Water Transfer Pumps, both pumps will still be available for makeup. None of the DWS equipment is used for accident mitigation. The DWS system is not addressed in any Technical Specification.
TMod	2-93-IA-010	This TMod provides a jumper around the instrument air containment isolation valve, IAA-UV002, from valve IAN-V295, line E-068-HCDA-2" to valve IAA-V296, line E-069-HCBA-2". The purpose is to ensure a continuous supply of instrument air during mode 6 (refueling) while activities that would impact this supply, such as the electrical train outage, are allowed to continue.	This TMod did not introduce an unreviewed safety question. The instrument air system is not a part of the accident scenarios described in the UFSAR and this TMod will only be in place during refueling activities. This TMod is in compliance with Technical Specifications by maintaining one automatic isolation valve operable. The margin of safety will not be reduced.
TMod	2-93-IA-029	This TMod will provide a larger capacity Service/Breathing Air Tap-off outside at the Spray Pond Metering Pump House to support Steam Generator chemical cleaning activities. A service air line will be modified to increase air flow capacity for a vendor hose hookup (for chemical cleaning).	This TMod does not introduce an unreviewed safety question. The probability and consequences of an accident previously evaluated will not be increased. The Service/Breathing Air System does not have an impact on equipment important to safety. The affected piping is not safety related and there appears to be no safety related equipment nearby. This TMod has no affect on the Tech Specs and will not reduce any margin of safety.
TMod	2-93-NG-007	This TMod provides a temporary modification to provide power to various loads normally powered from the EPBBS04 and ENANS02 busses in support of the maintenance outage.	This TMod did not introduce an unreviewed safety question. Affected equipment would normally be deenergized during a maintenance outage of the EPBBS04 and ENANS02 bus outage. In addition, the TMod specifies that the appropriate compensatory measures for the radiation monitors will be identified prior to TMod installation and removal.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
TMod	2-93-PK-009	This TMod is installed to supply power to 2EPKAH15 from non-class MCC 2ENHNM7205, which in turn will provide DC power to select loads fed from 2EPKBD22. The selected loads supply control power to circuit breakers in 2EPBAS03 and 2EPGBL36.	This TMod did not introduce an unreviewed safety question. The TMod will provide power to a piece of previously de-energized and non-functional equipment to serve as a source of control power and facilitate maintenance/operations in restoring 2EPBAS03 and 2EPGAL35 from a de-energized state. The margin of safety will not be reduced because the equipment served by the temporary power will have been declared in-operable prior to the installation of the TMod, and therefore not required by Technical Specification 3/4.8.2.
TMod	2-93-RC-014	Proportional Pressurizer Heater B14 is shorted to ground. Electrically disconnect Pressurizer Heater B14 and return the proportional bank to service with heaters B2 and B8 in an open delta configuration. Heater B14 heater sheath has been breached based on electrical data (meggar readings) taken when the pressurizer was drained and when it was filled.	This TMod did not introduce an unreviewed safety question. This change does not alter the operation, function, or operability of the pressurizer heater system. The loss of backup heaters is within the bounds of chapter 15 analyses. No credit is assumed for the pressurizer pressure control system (PPCS) including pressurizer heaters in mitigating accident consequences of the UFSAR chapter 15 analysis. The loss of Proportional Heater B14 along with the loss of Proportional Heater B17 and Non-Class Backup Heater A06 will cause the plant to heatup at a marginally slower rate. Plant heatup time does not impact plant safety or the probability or consequences of any accidents. This change does not adversely effect the RCS Pressure Boundary.
TMod	2-93-RC-025	Backup Pressurizer Heater B09 is shorted to ground. Since B09 is one of the six Technical Specification required heaters in the heater circuit, a heater from another circuit must be substituted for the grounded B09 heater to meet this requirement. Electrically disconnect Pressurizer Heater B09 and relabel it A09 then reconnect this class 1E power supply to Pressurizer Heater A09 in place of its current non-1E power supply and relabel it B09. B09 heater sheath has been breached due to electrical data (meggar readings) indicating 0 ohm grounds. This temporary modification is necessary to meet Technical Specification 3.4.3.	This TMod did not introduce an unreviewed safety question. This change does not alter the operation, function, or operability of the pressurizer heater system. No credit is assumed for the pressurizer pressure control system (PPCS) including pressurizer heaters in mitigating accident consequences of the UFSAR chapter 15 analysis. Plant heatup time does not impact plant safety. The CE pressurizer study concludes that 7 of the 36 pressurizer heaters could be removed without affecting plant operations. Technical Specification safety margins are not impacted or compromised by this change.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
TMod	3-93-1A-019	This TMod provides a jumper around the instrument air containment isolation valve, 3JIAAUV0002, from valve 3P1ANV295, 2" line 3PIANL068. The purpose is to ensure a continuous supply of instrument air during mode 6 refueling/operations while activities that would impact this supply, such as the electrical train outage, are allowed to continue.	This TMod did not introduce an unreviewed safety question. This TMod will not be installed when a core alteration or the movement of irradiated fuel is taking place. This TMod does not affect the automatic check valve 3PIAEV021 located inside containment, downstream of the location of this TMod. This TMod will be in place only during refueling activities. No core "alteration" activities or movement of irradiated fuel will be allowed while this TMod is installed.
TMod	3-93-MT-005	This TMod involves the turbine Power Load Unbalance (PLUB) signal. This modification removes actuation of steam control valve fast acting solenoids and replaces with turbine trip signal. A digital fault recorder (DFR) input is being added to monitor PLUB actuation. Specifically, in the event of a PLUB signal, it replaces the automatic fast closure and subsequent reopening of the steam control valves and closure of the intercept valves with a turbine trip signal. Additionally, an input will be added to the Digital Fault Recorder (DFR) to provide a record of the PLUB signal.	This TMod did not introduce an unreviewed safety question. The modification does not affect any equipment that is important to safety. The modification involves the turbine and its protective circuits which are NQR.
TMod	3-93-RC-009	This TMod is substituting the non-class COLSS back-up RCP speed sensor (#155) from RCP 1A for the failed CPC channel B speed sensor (#113B) from the same RCP. Sensor #155 and its associated amplifiers are technically identical in all respects to sensor #113B and its associated amplifiers. In addition, sensor #155 measures the speed of RCP 1A from the same place as sensor #113B and provides the same pulse frequency and signal amplitude as sensor #113B.	This TMod did not introduce an unreviewed safety question. Chapter 15 of the UFSAR already addresses the probability and consequences of a decrease in reactor coolant flow accident. The use of a different speed sensor only restores the full capability of the RPS to detect and respond to this accident. The probability of a fire, missile hazard, cable fault is not increased. Technical Specifications already allow the operation of the reactor with one channel of the RPS out of service, and this change restores all channels, the margin of safety is not reduced.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
TMod	3-93-RC-020	Pressurizer Heater 3M-RCE-A15 is shorted to ground and is being removed from service by this TMod. Technical Specifications and emergency procedure guidelines showed that a minimum heater capacity of 300 kw is required to meet the Technical Specification requirements.	This T-Mod did not introduce an unreviewed safety question. The impact of reduced heater capacity was also studied for different plant operations. These operations do not show a significant impact when pressurizer heater capacity is reduced a small amount (<20%). Disconnecting the power supply to heater A15 by this T-Mod will result in a capacity reduction of 2.8%, which is well within the 20% allowed quoted by the CE Pressurizer Heater Capacity Study. This change does not alter the operation, function, or operability of the pressurizer heater system. UFSAR Section 7.2.2.4.1.2.1 states that the loss of backup heaters is within the bounds of chapter 15 analyses. Pressurizer heater A15 is not a part of the heater banks required by Technical Specifications. Heater A15 will either be reworked or replaced during next refueling outage.
TMod	3-93-RD-002	This TMod is to install a temporary pump into the Liquid Radwaste (LR) system Radwaste Building sump as the normal sump pumps are not functional. There is no change to the existing plant permanent piping, flow paths or design objectives of the Liquid Radwaste Management System.	This TMod did not introduce an unreviewed safety question. The liquid radwaste and drain systems are not safe shutdown systems. They respond to no ESFAS signal nor perform any emergency function. As they are not involved in any accident scenario, the attachment of this temporary pump and hoses to the LR/RD system header will not impact any accident. There is no increase in the probability or consequences of any accident.
TMod	3-93-SC-016	Due to damage caused to the Acid Day Tank (3MSCNT01), provide a temporary source of acid to allow continued operation of the Condensate Demineralizer Regeneration subsystem. This temporary modification will isolate the existing tank (3MSCNT01) and eliminate the existing alarm/interlock functions of the tank low level switch.	This TMod did not introduce an unreviewed safety question. UFSAR Chapter 15 events could not be initiated by the acid injection skid in the condensate demineralizer section of the SC system. The acid injection skid in the condensate demineralizer section of the SC system has no safety function.
WO	00536352	This WO will install a TEAC MR-30 recorder and isolation transformer at cabinet 1JSBA-C02A, terminals 3(+) and 3(-) of distribution module SD1-4 located in nest 6, slot 7. The recorder is testing equipment being utilized to evaluate the Ex-Core rate indications during start-up and will not affect the normal operation of the Ex-Core system. The recorder has a high input impedance that will prevent any loading effect on the circuit being monitored. In addition, the recorder will be supplied AC power through an isolation transformer to ensure plant circuitry will not be grounded through the recorder thus maintaining separation requirements. The Ex-Core Safety System is a 4 channel redundant system.	This WO does not introduce an unreviewed safety question. The signal evaluation being performed only affects the indication portion of the system. This will not increase the probability of an accident previously evaluated. Because the inherent isolation circuitry and the isolation precautions taken, the probability of a malfunction of equipment important to safety will not be increased.







DOC TYPE	NUMBER	DESCRIPTION	SUMMARY
WO	813570	<p>This change adds a jumper and switch in the control circuitry for discharge valve 02N-LRN-P10B, this will allow 02J-LRN-HV254A, to be opened without the 10B pump running. This will allow line up of a flow path from 10A to discharge hot water into the discharge piping of 10B. This flow path will be maintained until the solidified boric acid returns to solution, or a maximum of 48 hours.</p>	<p>This change does introduce an unreviewed safety question. The probability of an accident previously evaluated will not be increased. The probability of a malfunction will not be increased. The only possible effect will be that more and more of the output of P10A pump will be recirculated as the concentrates are dissolved in the P10B pump. This work order will limit the duration of this such that operation in this mode will not be for an extended period. The margin of safety of any Technical Specification or basis is not affected.</p>



