NRC FORM 474 (1-90)
10 CFR 55.45(b), 55.4 and 55.5

U.S. NUCLEAR REGULATORY COMMISSION

SIMULATION FACILITY CERTIFICATION

APPROVED BY OMB: NO. 3150-0138
EXPIRES: 9-30-92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 120 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0138), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

INSTRUCTIONS. This form is to be filed for initial certification, recertification (if required), and for any change to a simulation facility performance testing plan made after initial submittal of such a plan. Provide the following information, and check the appropriate box to indicate reason for submittal.

FACILITY: Peach Bottom Atomic Power Station, Unit 3

DOCKET NUMBER: 50- 278

LICENSEE: Philadelphia Electric Company

DATE: 2/8/91

This is to certify that:

1. The above named facility licensee is using a simulation facility consisting solely of a plant-referenced simulator that meets the requirements of 10 CFR 55.45.
2. Documentation is available for NRC review in accordance with 10 CFR 55.45(b).
3. This simulation facility meets the guidance contained in ANSI/ANS 3.5, 1985, as endorsed by NRC Regulatory Guide 1.149.

If there are any exceptions to the certification of this item, check here [X] and describe fully on additional pages as necessary.

NAME *(or other identification)* AND LOCATION OF SIMULATION FACILITY

Peach Bottom Atomic Power Station Unit 2 Simulator
Peach Bottom Atomic Power Station RD #1 Box 208 Delta, PA 17314

[ ] SIMULATION FACILITY PERFORMANCE TEST ABSTRACTS ATTACHED. *(For performance tests conducted in the period ending with the date of this certification)*

DESCRIPTION OF PERFORMANCE TESTING COMPLETED *(Attach additional page(s) as necessary, and identify the item description being continued)*

Exhibit II, Peach Bottom Atomic Power Station Unit 3 - Simulator Performance Report, of the Nuclear Training Division Simulator Certification Procedure is attached. This report documents the Simulation Facility Performance as it relates to training and examining of Unit 3 personnel in accordance with ANSI/ANS-3.5-1985 & Regulatory Guide 1.149. The Certification submittal for Peach Bottom Atomic Power Station, Unit 2 (The Reference Plant) contains the Performance Test Abstracts and a description of the performance testing completed.

[ ] SIMULATION FACILITY PERFORMANCE TESTING SCHEDULE ATTACHED. *(For the conduct of approximately 25% of performance tests per year for the four year period commencing with the date of this certification.)*

DESCRIPTION OF PERFORMANCE TESTING TO BE CONDUCTED. *(Attach additional page(s) as necessary, and identify the item description being continued)*

Exhibit II, Peach Bottom Atomic Power Station Unit 3 - Simulator Performance Report, of the Nuclear Training Division Simulator Certification Procedure is attached. This report documents the Simulation Facility Performance as it relates to training and examining of Unit 3 personnel in accordance with ANSI/ANS-3.5-1985 & Regulatory Guide 1.149. The certification submittal for Peach Bottom Atomic Power Station, Unit 2 (The Reference Plant) contains the Performance Test Schedule and description of performance testing to be completed.

[ ] PERFORMANCE TESTING PLAN CHANGE. *(For any modification to a performance testing plan submitted on a previous certification)*

DESCRIPTION OF PERFORMANCE TESTING PLAN CHANGE *(Attach additional page(s) as necessary, and identify the item description being continued)*

[ ] RECERTIFICATION *(Describe corrective actions taken, attach results of completed performance testing in accordance with 10 CFR § 55.45(b)(5)(iv). Attach additional page(s) as necessary, and identify the item description being continued.)*

Any false statement or omission in this document, including attachments, may be subject to civil and criminal sanctions. I certify under penalty of perjury that the information in this document and attachments is true and correct.

SIGNATURE - AUTHORIZED REPRESENTATIVE

TITLE: Vice President, Peach Bottom Atomic Power Station

DATE: 2/8/91

In accordance with 10 CFR § 55.5, Communications, this form shall be submitted to the NRC as follows:

BY MAIL ADDRESSED TO: Director, Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

BY DELIVERY IN PERSON TO THE NRC OFFICE AT: One White Flint North
11555 Rockville Pike
Rockville, MD

NRC FORM 474 (1-90)

List of Exceptions to ANSI/ANS-3.5,1985
for PBAPS Unit 3 Certification

I. The following are exceptions to the Control Room/Simulator Physical Arrangement:

- the bench board panels (30C06A though 30C0012, and the vertical panels directly behind them are rotated 90° from the Simulator positions; further exceptions to this are:
  - the location of the Radiation Monitoring Panels (30C002, 30C010, and 30C011), which are arranged in reverse order adjacent to the 00C014 Radiation Monitoring Panel,
  - the Fire Protection Panel and equipment locker (00C001) in the Simulator, which does not have a counterpart in Unit 3; this causes the 30C206L annunciator panel to be located above the 30C010 and 30C011 Panel instead of the fire panel,
- the vertical back panels (30C004B through 30C003) are translated to the opposite side of the Main Generator control panel (30C009), arranged in the same order; the CAD control panels (30C284A and B) are adjacent to the 30C004B Panel(HPCI) instead of the PCIS/SRV Panel (20C003-01) as in the Simulator.

II. The follwing are exceptions to the design of panels and arrangement of controls; and in the replication of information displays, physical controls and equipment on the panels:

- Annunciator panel window lights in the simulator are dimmer than those in the PBAPS control room. As a result, the windows that are color coded blue have the color only on half the window (on a diagonal); this is done to maintain readability. These windows in the Reference Plant have the blue fully across the face of the annunciator window. This was an authorized substitution made during Simulator procurement.
- Tracor-Westronics recorders have been substituted for GEMAC recorders. These recorders are outdated and no longer available; the Reference plant has been substituting in the same manner when existing GEMAC recorders can no longer be repaired. This was an authorized substitution made during Simulator procurement.
- L&N Thermal Multipoint Recorders are substituted for Speed-O-Max W recorders used in the Reference Plant. This was an authorized substitution made during Simulator procurement.
- Feedwater Control controller for CV-2558 (CV3558) in the Simulator on panel 20C005A (30C005A) does not replicate the controller in the plant; it does not have the same selectable positions. CMS Work Order 900443 has been issued to correct this exception.

- Radiation Indicating Switch RIS-8394 and the associated position indicating lights for AO-8416 on panel 20C010 (30C010) are not installed on the Simulator. CMS Work Order 890113 has been issued to correct this exception.

III. The following are exceptions to the Simulator Environmentthe PBAPS Control Room Environment in the areas of; flooring, lighting, obstructions,and communications equipment:

- The floor structure for the simulator is a standard computer floor with carpeting; the carpeting is the same as the PBAPS Control Room except for seaming as necessary to allow access through the computer flooring. This was an authorized substitution made during Simulator procurement.

- The PBAPS Control Room lighting is divided into four separate groupings with different power supplies, 2 separate DC and 2 separate AC sources; because of building wiring limitations, the Simulator has only two groupings of lighting, 1 simulating a DC and 1 an AC power source. This was an authorized substitution made during Simulator procurement. The Simulator and Unit 2 Control Room area lighting and lighting levels have been designed to be the same.

TP 161 - EXHIBIT II
PEACH BOTTOM ATOMIC POWER STATION
UNIT 3 - SIMULATOR PERFORMANCE REPORT

DATE OF REPORT: 01/31/91

I. PURPOSE

This report demonstrates the acceptability of the Peach Bottom Atomic Power Station (PBAPS) Unit 2 Simulator (referred to hereafter as the Simulator) to the requirements of the following for training and examining PBAPS Unit 3 personnel:

A. ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for Use In Operator Training

B. Regulatory Guide 1.149, Nuclear Power Plant Simulation Facilities for Use in Operator License Examinations

C. 10CFR55, Operator's Licenses.

II. REFERENCES

In addition to the documents listed in Section I, the following are referenced:

A. TP-161, Peach Bottom Atomic Power Station Training Division - Simulator Certification Procedure

B. TP-162, Peach Bottom Atomic Power Station Training Division - Configuration Management System

C. TP - 161, Attachment I PEACH BOTTOM ATOMIC POWER STATION UNIT 2 SIMULATOR PERFORMANCE REPORT

III. SIMULATOR INFORMATION

The following information is provided as background on the Simulator and its capabilities as a medium for PBAPS Unit 3 operator training.

A. General Information

1. Owner/Operator/Manufacturer

a. The Simulator is owned by:

Banker' Lease Corporation
2655 Campus Dr.
Suite 200
San Mateo, CA 94403-2753

b. The Simulator is operated by:

Philadelphia Electric Company
Peach Bottom Atomic Power Station
R.D. # 1 Box 208
Delta, PA 17314

c. The Simulator was manufactured by the Link Simulation Systems Division of the Singer Company, Silver Springs, MD

2. The Simulator is referenced to Unit 2 of the Peach Bottom Atomic Power Station.

Both Unit 2 and Unit 3 of the PBAPS are General Electric Boiling Water Reactors (BWR/4 design) with ratings of 3293 MWt and 1100 MWe, and General Electric Mark I Containment Design.

3. The Simulator was initially declared available for training on August 29, 1989.

4. This is the initial report of Standard compliance for the Simulator.

IV. The information provided below is an summary of the differences between the PBAPS Unit 2 Simulator and PBAPS Unit 3. Each difference identified is accompanied by an assessment of the training impact of using the PBAPS Unit 2 Simulator in training PBAPS Unit 3 personnel.

A. Control Room Design and Instrument/Control Location

The Simulator simulates those PBAPS Control Room panels designated as Unit 2 and/or Common panels, and selected Unit 2 remote control panels. Unit 3 panel 30C009 is included in the Simulator, and is visually simulated only. The remaining Unit 3 PBAPS Control Room panels have been compared to the Simulator control panels to identify differences. As they apply to the Unit 3 Control Room panels, the results of these comparisons is detailed in the following areas:

NOTE: Unit 3 Control Panels are generally designated as 30Cxxxx, while the corresponding Unit 2 Panels are 20Cxxxx; Common Panels are generally designated as 00Cxxxx

1. Control Room/Simulator Physical Arrangement.

As shown on the drawings in the attached drawings:

a. M-24, EQUIPMENT LOCATION TURBINE BUILDING UNIT No. 3 PLAN AT EL. 165'-0"
b. SIMULATOR FACILITY CONTROL PANEL ARRANGEMENT

the relative arrangement of the major Unit 3 Control Room panels is the same as the Unit 2 panels with the following exceptions:

- the bench board panels (30C006A through 30C0012, and the vertical panels directly behind them are rotated 90° from the Simulator positions; further exceptions to this are:
  - the location of the Radiation Monitoring Panels (30C002, 30C010, and 30C011), which are arranged in reverse order adjacent to the 00C014 Radiation Monitoring Panel,
  - the Fire Protection Panel and equipment locker (00C001) in the Simulator, which does not have a counterpart in Unit 3; this causes the 30C206L annunciator panel to be located above the 30C010 and 30C011 Panel instead of the fire panel,
- the vertical back panels (30C004B through 30C003) are translated to the opposite side of the Main Generator control panel (30C009), arranged in the same order; the CAD control panels (30C284A and B) are adjacent to the 30C004B Panel(HPCI) instead of the PCIS/SRV Panel (20C003-01) as in the Simulator.

2. Panels/Equipment

a. The PBAPS Simulator Control Panels are designed to be the same in size, shape, coloring, configuration, and arrangement as the PBAPS Unit 2 and Common Control Room Panels. All information displays, physical controls and equipment on these panels are designed to replicate those in the PBAPS Control Room Unit 2 panels. Exceptions noted in the Unit 2 Simulator Performance Report which are applicable to Unit 3 are:

- Annunciator panel window lights in the simulator are dimmer than those in the PBAPS control room. As a result, the windows that are color coded blue have the color only on half the window (on a diagonal); this is done to maintain readability. These windows in the Reference Plant have the blue fully across the face of the annunciator window. This was an authorized substitution made during simulator procurement.

- Tracor-Westronics recorders have been substituted for GEMAC recorders. These recorders are outdated and no longer available; the Reference plant has been substituting in the same manner when existing GEMAC recorders can no longer be repaired. This was an authorized substitution made during Simulator procurement.

- L&N Thermal Multipoint Recorders are substituted for Speed-O-Max W recorders used in the Reference Plant. This was an authorized substitution made during Simulator procurement.

- Feedwater Control controller for CV-2558 (CV3558) in the Simulator on panel 20C005A (30C005A) does not replicate the controller in the plant; it does not have the same selectable positions. CMS Work Order 900443 has been issued to correct this exception.

- Radiation Indicating Switch RIS-8394 and the associated position indicating lights for AO-8416 on panel 20C010 (30C010) are not installed on the Simulator. CMS Work Order 890113 has been issued to correct this exception.

b. Simulator Environment

The Simulator Control Room environment has been designed to be as close as possible to the PBAPS Control Room Environment in the areas of; flooring, lighting, obstructions, and communications equipment. The following exceptions noted in the Unit 2 Simulator Performance Report are applicable to Unit 3:

- The floor structure for the simulator is a standard computer floor with carpeting; the carpeting is the same as the PBAPS Control Room except for seaming as necessary to allow access through the computer flooring. This was an authorized substitution made during Simulator procurement.

- The PBAPS Control Room lighting is divided into four separate groupings with different power supplies, 2 separate DC and 2 separate AC sources; because of building wiring limitations, the Simulator has only two groupings of lighting, 1 simulating a DC and 1 an AC power source. This was an authorized substitution made during Simulator procurement. The Simulator and Unit 2 Control Room area lighting and lighting levels have been designed to be the same.

c. The attached PABPS UNIT 3/SIMULATOR CONTROL PANEL PHYSICAL DIFFERENCES Report documents other differences between the PBAPS Unit 3 Control Room Panels and those in the Simulator, and provides a Unit 3 training impact assessment for each.

B. Facility Design and Systems

The Simulator simulates those systems necessary to support PBAPS Unit 2 operations for the Normal Evolutions and Malfunctions required in Section 3.1 of the Standard. The list of Plant Systems is the identical for PBAPS Unit 2 and Unit 3; therefore the systems simulated in the Simulator will support Unit 3 training as well as Unit 2. A list of the Unit 2/Unit 3 systems, which identifies systems simulated, is provided in the attached PBAPS UNIT 3 DESIGN AND SYSTEMS RELEVANT TO CONTROL ROOM PERSONNEL for reference.

C. Operating Procedures/Technical Specifications Comparison

1. The Simulator utilizes a Controlled set of PBAPS Unit 2 Operating Procedures and Technical Specifications to conduct all training, examinations and testing. The Unit 2 Simulator Performance Report documents the ability to operate the Simulator in accordance with the Reference Plant Operating Procedures.

2. The Unit 3 controlled procedures corresponding to those tested for Unit 2 Certification were analyzed to determine differences that exist between procedures for the Units. The attached PBAPS UNIT 2-UNIT 3 PROCEDURE COMPARISON Report summarizes the differences found as a result of the analysis, and includes a Unit 3 training impact assessment for each.

3. The Unit 2 and Unit 3 Technical Specifications were analyzed to determine any differences that exist between the Technical Specifications for the Units. The attached UNIT 2/UNIT 3 TECHNICAL SPECIFICATIONS COMPARISON Report summarizes the differences found as a result of the analysis, and includes a Unit 3 training impact assessment for each.

D. Operational Characteristics

Since the Unit design, systems, procedures, and Technical Specifications are very nearly the same for the two Units at PBAPS, the only differences in Unit Operational Characteristics are those associated with differences in fuel cycles and/or fuel exposures. These differences are accounted for in the differing cycle conditions represented by the Protected Initial Conditions that are presented in the Unit 2 Simulator Performance Report.

V. LIST OF REPORTS ACCOMPANYING THIS EXHIBIT

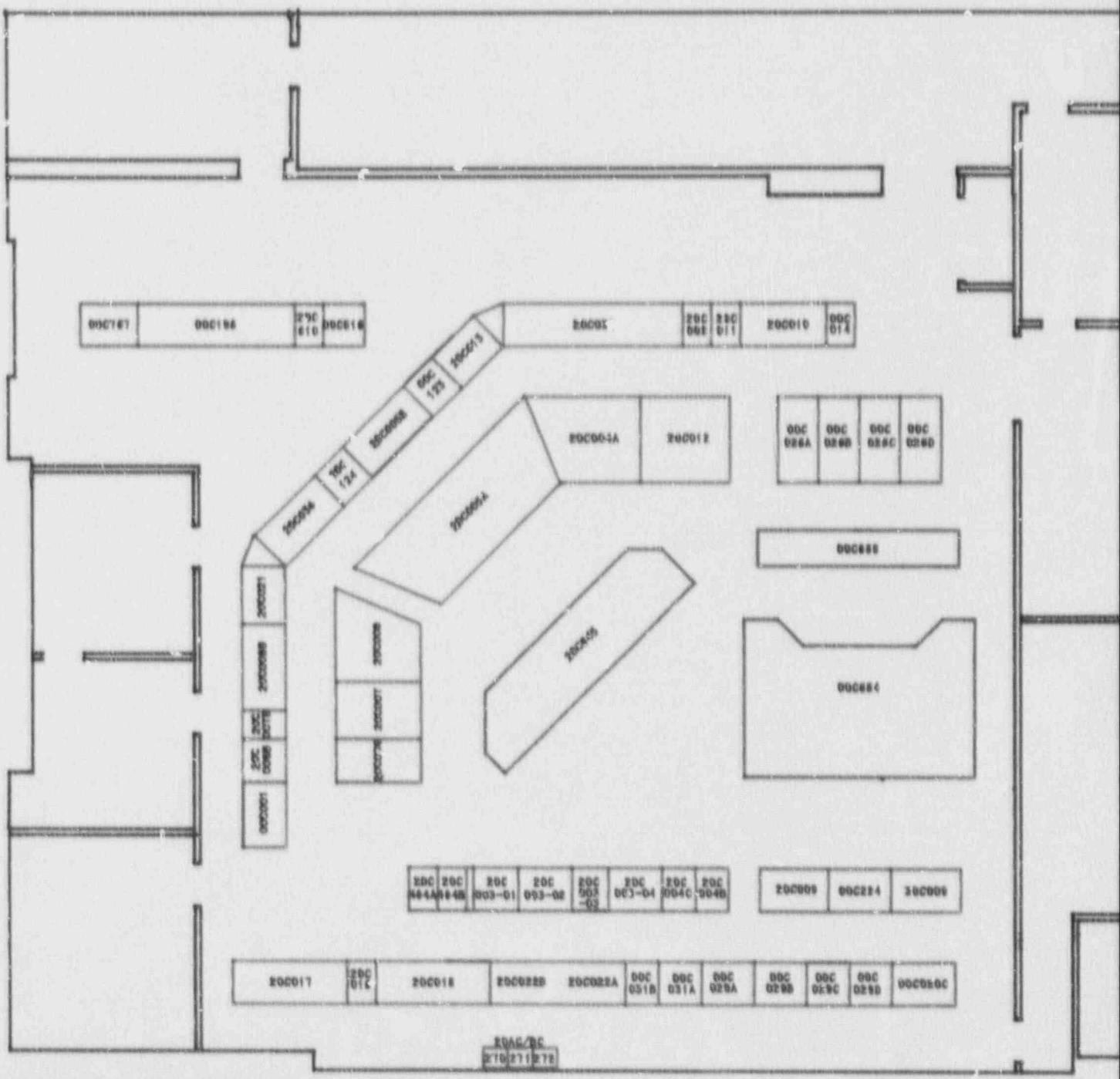
A. PBAPS Control Room/Simulator Drawings

B. PBAPS Unit 3/Simulator Control Room Physical Differences

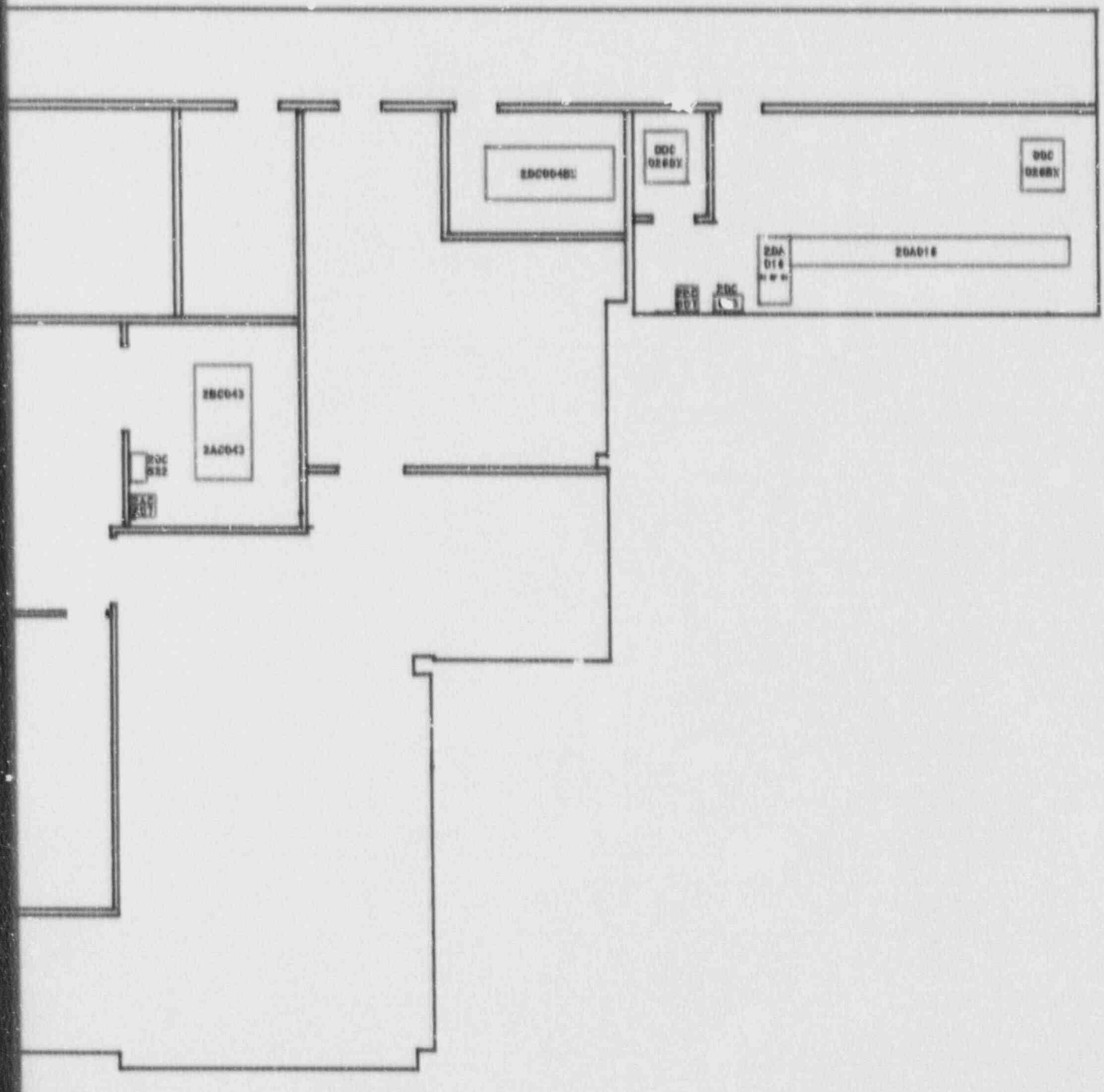
C. Unit 3 Design and Systems Simulated Relevant to Control Room Personnel

D. Unit 2/Unit 3 Procedures Comparison

E. Unit 2/Unit 3 Technical Specification Comparison



SIMULATOR FACILITY CONTROL PANEL ARRANGEMENT



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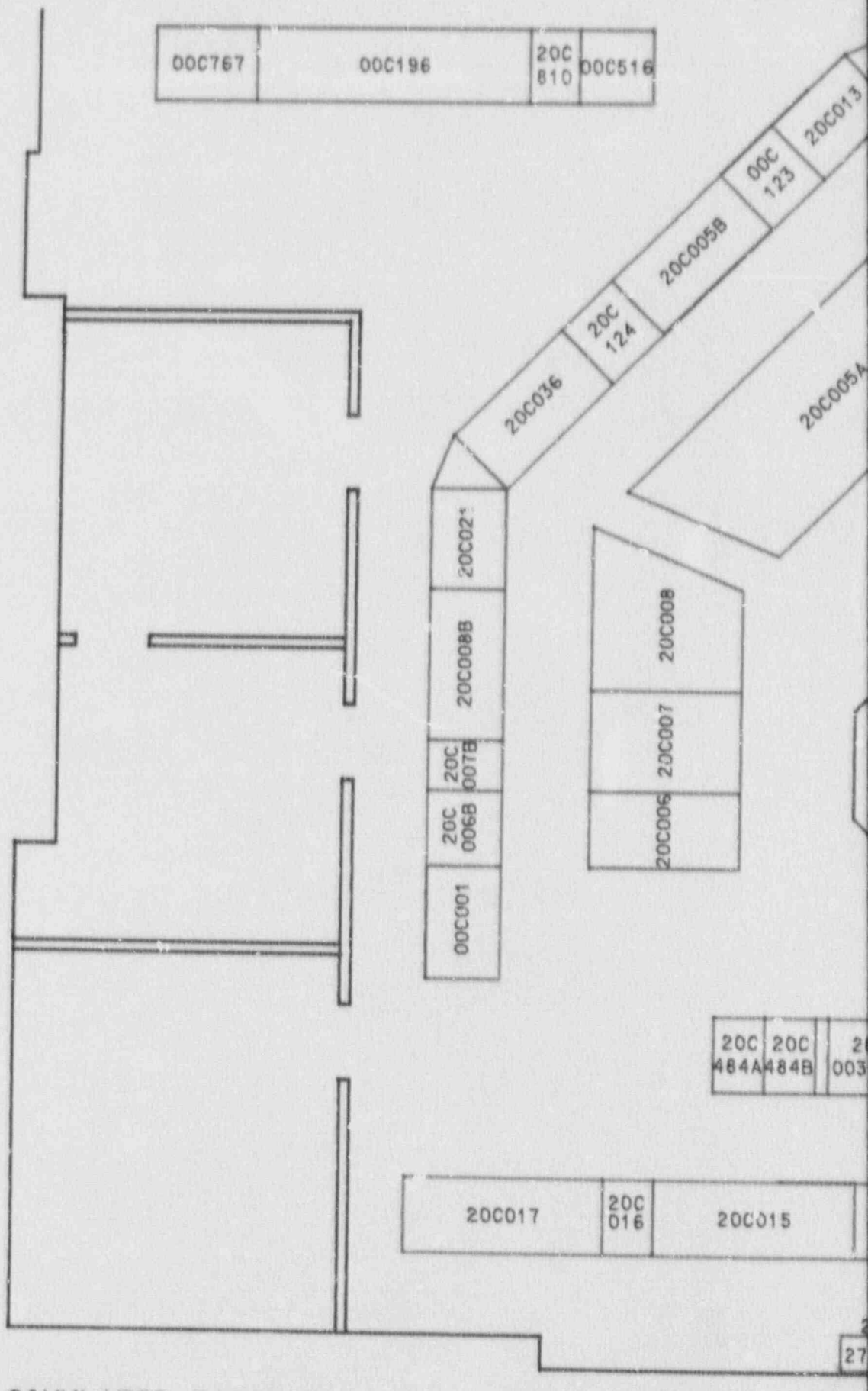
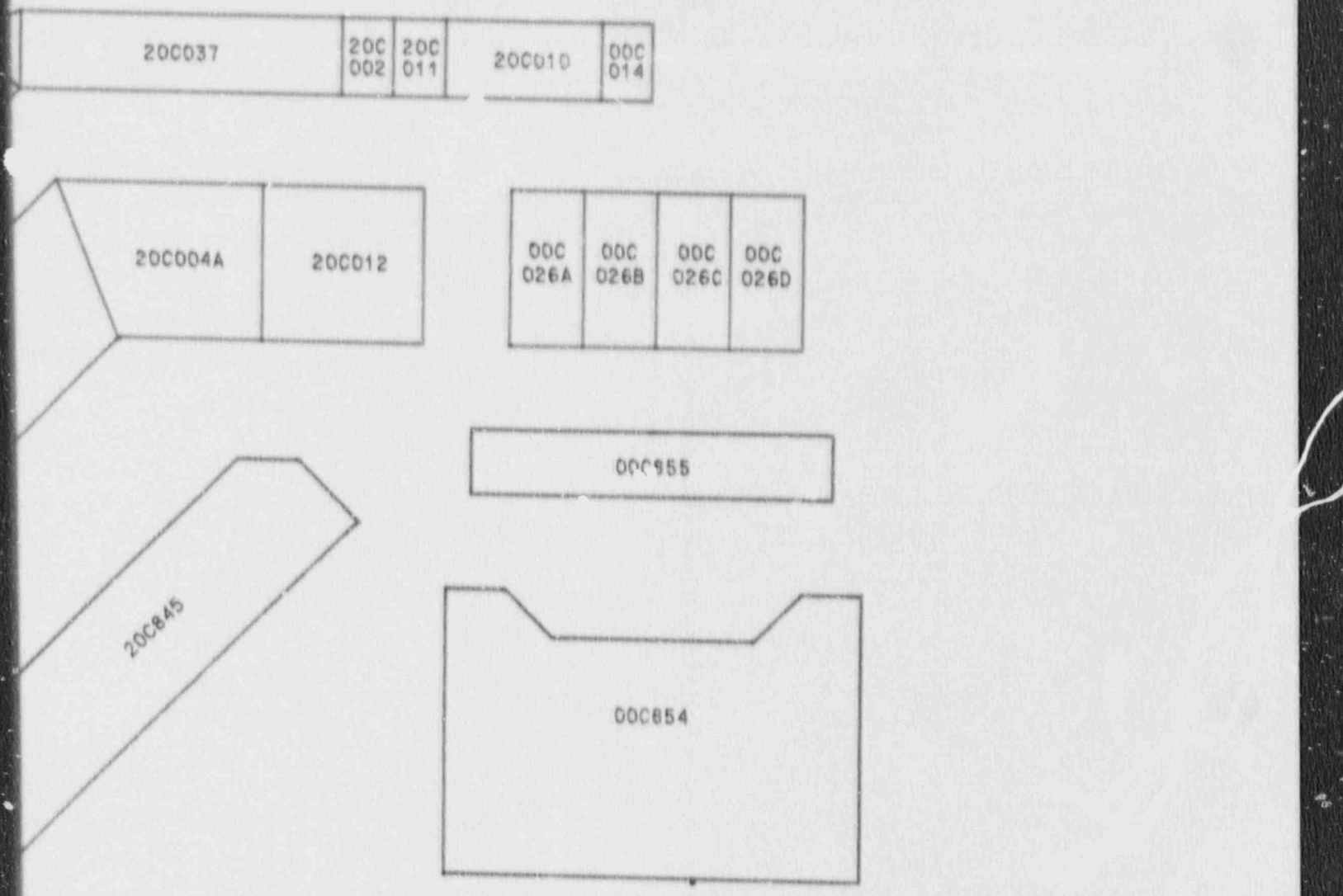
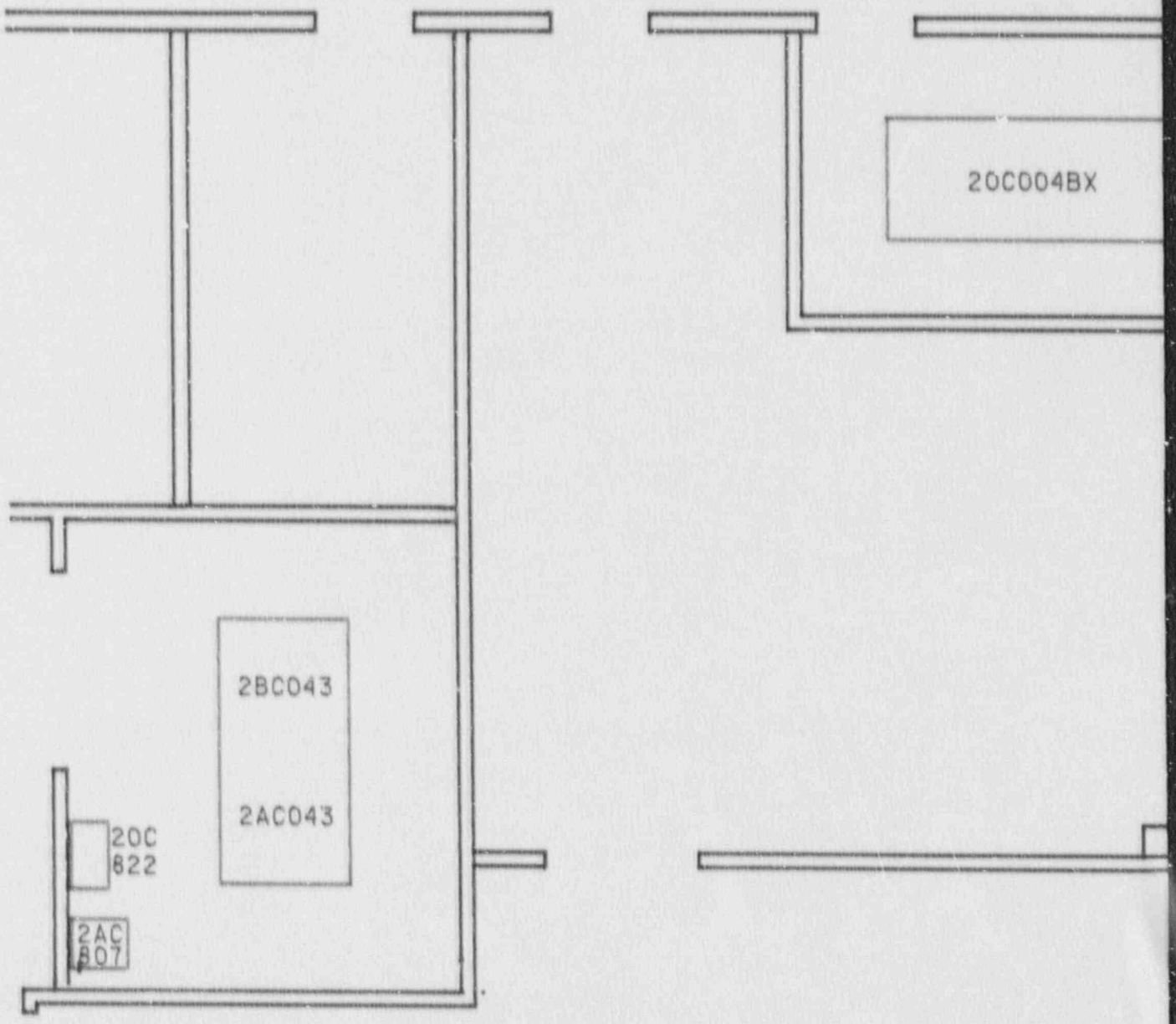
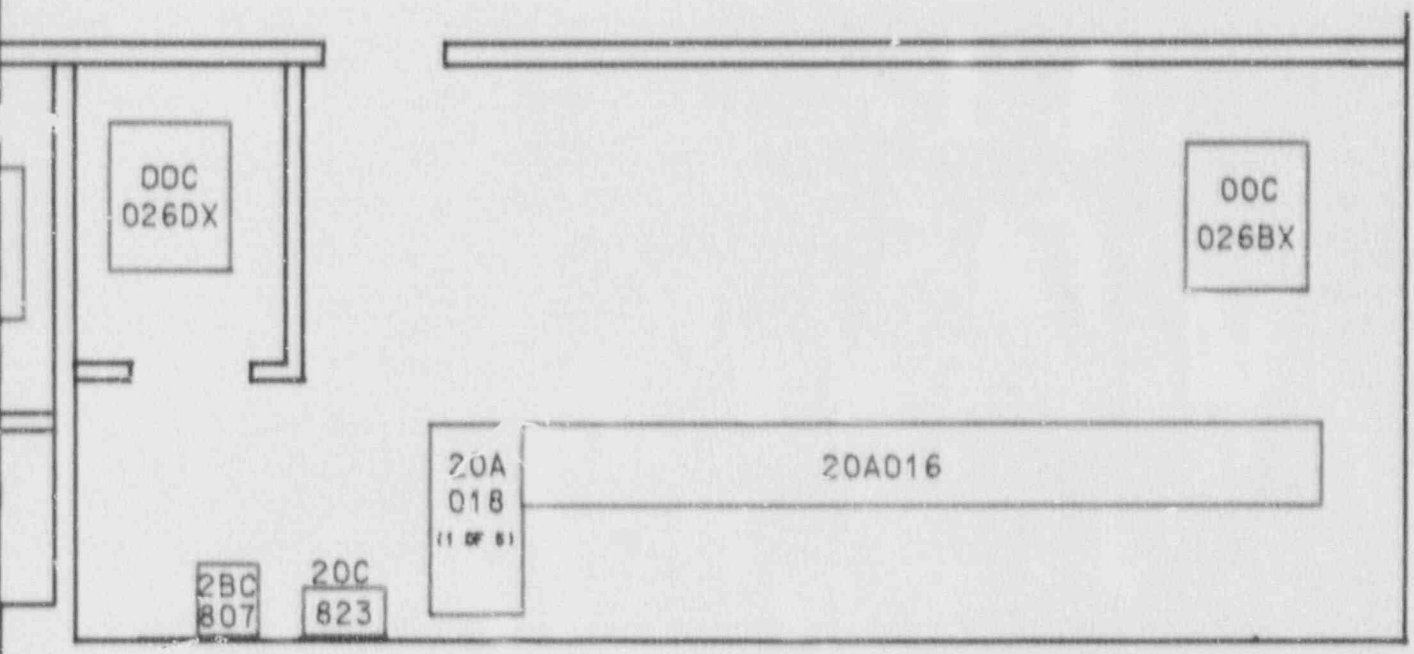


SIMULATOR FACILITY CONTROL PANEL ARRANGEMENT





SIMULATOR FACILITY CONTROL PANEL ARRANGEMENT



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PEACH BOTTOM ATOMIC POWER STATION UNIT 3/
SIMULATOR CONTROL PANEL PHYSICAL DIFFERENCES

DIFFERENCES BASED ON COMPARISON
WITH PLANT PHOTGRAPHS TAKEN IN
NOVEMBER, 1990

A comparison of the Simulator and PBAPS Unit 3 Control panels has been conducted. The differences identified by the comparison are detailed below. Unless otherwise noted in the details, the comparison was based on photograph of the Unit 3 Control panels taken on the date shown above. The identified differences have been evaluated for the impact of using the Simulator for training and examinations of Unit 3 operators according to the following criteria:

NONE or NO	(N)	- the difference is negligible and will have no impact on simulator training or simulator examinations.
SLIGHT	(S)	- the difference is little; and is such that it is not likely to cause an operator error and any errors caused are readily recoverable.
MODERATE	(M)	- the difference is little; and is of a magnitude that operator disorientation and error are possible, but that unrecoverable errors are unlikely.
LARGE	(L)	- the difference is large and is likely to cause operator disorientation and and can easily lead to unrecoverable errors.

In addition to the specific differences tabulated below, the following general items were identified as differences during the verification effort. These differences represent dimensional deviations from the configuration of equipment in Unit 3 that do not impact on actions to be taken by an operator.

- The engraving on small size lamacoids for instrument identification that represent the letter I appear as a single vertical line in Unit 3; in most cases these are engraved as an I in the Simulator.

- The red illuminated pushbutton switches (Micro-Switch Type 1C113-2), used mostly for MOV controls, have a white base and silver mounting nut in the Simulator instead of being all red with a black mounting nut in Unit 3, and are slightly longer in the Simulator.

- The red and green position indicating lights for valve and breaker indication are mounted slightly closer together in the Simulator than on the Unit 3 Control Panels, thus the red and green (normal position) enhancement dots in the Simulator must be of slight smaller diameter.

- The Annunciator lettering in the Simulator is not all the same size as on the Unit 2 Annunciator windows; all lettering is of readable size. Differences in wording have been evaluated against the Reference Plant (Unit 2).

- The Simulator control panels are painted a slightly darker shade of the same color that the Unit 3 control panels are painted.

- Components that have been removed from the Unit 2 Control Panels are replaced with blank plates inserted flush with the panel, filled, sanded, and painted. Components that have been removed from the Simulator Control Panels have been treated in the same manner in most cases; however, a few items have been blanked by attaching a cover plate that fits over the opening and is not flush with the panel.

NOTE:

MOD 09551, Control Room Consoles and Displays, is currently being installed on the Simulator. This MOD adds new operators consoles and displays, as well as new panel displays. This Mod has been installed on Unit 3, and is scheduled for installation in Unit 2 during the 1991 Refueling Outage. Comparisons of the Unit 3 consoles and displays added by this MOD will be evaluated when Unit 2 installation is complete.

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
00C001		FIRE PROTECTION PANEL	LOCATED IN UNIT 2 & IN SIM NOT IN UNIT 3	01/17/91	N
00C001		EMERG. COOLING TOWER PANEL	LOCATED IN UNIT 2 & IN SIM NOT IN UNIT 3	01/17/91	N
00C196	TI 4029	OFF GAS OUT TEMP	METER DIFF. SAME SCALE U/3 SILVER CASE, SIM. BLACK CASE	01/16/91	N
00C196	PI 8359	COOLER PP DISCH	U/3 SILVER CASE, SIM. BLACK CASE METER & SCALE DIFF. U/3 0-100 PSIG, SIM. 0-70 PSIG	01/16/91	S
00C196	TR 2777	OFF GAS IN/OUT STEAMER TR	SIM. SCALE 0-12 U/3 SCALE 0-600	01/16/91	S
00C196	TR 2'	RECOMBINER OUT TEMP.	SIM. SCALE 0-12 U/3 SCALE 0-120	01/16/91	S
00C196	H2S-4083	GUARD BED HIGH H2 TRIP SET	DIFFERENT PANEL LOCATION BETWEEN SIMULATOR LOCATION (U/2) AND U/3	01/16/91	S
00C196	H2S-4084	GUARD BED INLET HIGH H2 TRIP SET	DIFFERENT PANEL LOCATION BETWEEN SIMULATOR LOCATION (U/2) AND U/3	01/16/91	S
00C196	MRS-8362	COOLER OUTLET MUST MONITOR	MISSING TAG ON SIM. ON TOP OF RECORDER	01/16/91	S
00C196	PC 4018	STEAM PCV	VALVE POSITION METER SLIGHTLY DIFF. AND MISSING 3 TAGS - SEE ATTACHED PHOTO	01/16/91	S
00C196		ALL TRIP POTS	DIFF. COLOR ON SIM. THAN U/3	01/16/91	N
30A016		LABEL	BARCODE LABEL AT TOP OF PANEL IS MISSING	01/15/91	N
30A016		LAMONIODS UNDER RELAYS	ONLY THE FOLLOWING RELAYS HAVE LAMONIODS: E222 #127E #127Y E22 #114-16 E322 #127E #127Y	01/15/91	S
30A016		E322 CAB.	LOCATION OF RED LAMPS AND DYMO LABELS	01/15/91	N
30A016		AN ESW BOOSTER - OAP163	NOT ON UNIT 3	01/15/91	N

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30A016		AN ESW CAB.	NOT ON UNIT 3	01/15/91	N
30A016		KEYBOX	LOCATED ON B RHR CAB, NOT E22 BUS CAB	01/15/91	S
30A016		B-CORE SPRAY,E-222,E-322,E-224,E-22 CABS	LOCATION OF RED LAM	01/15/91	N
30A016		B-HPSW CAB, B-RHR CAB	ALT. SHUTDOWN CONTROL TRANSFER SWITCHES NOT ON U3	01/15/91	S
30A016		B-HPSW CAB, B-RHR CAB, RELAY 127Y	DIFFERENT TYPE OF RELAY	01/15/91	N
30A016		2B HPSW CAB	NO ALT. SHUTDOWN INDICATION LAMPS	01/15/91	S
30A016	127Z-1608	E-222	RELAY # IS MISSING FROM CASE	01/15/91	N
30A016		E-222	TIME & PHASE DIR. OVERCURRENT RELAYS ARE REVERSED	01/15/91	N
30A016		3C HPSW CAB	NOT ON UNIT 2	01/15/91	N
30C002	RR-8081	HPSW RAD RECORDER	SIM RECORDER IS L&N 100 H.	01/17/91	N
30C002	R1&2-17-35		RADWASTE EFFLUENT MONITOR ON SIM ESW EFFLUENT MONITOR ON UNIT 3	01/17/91	N
30C002		TMP. MONITOR	SIM HAS RIVER WATER TEMP. MONITOR.	01/17/91	
30C003-01		MO-2-10-032, MO-2-10-033	(4) LAMPS NOT ON U3.	01/16/91	N
30C003-01		OPERATOR AID 589-21	DIFFERENT LOCATION ON PANEL.	01/16/91	S
30C003-01		RELIEF VALVES BELLOWS LEAKING LIGHTS A-L	LAM'S ARE ABOVE LIGHTS, NOT BELOW.	01/16/91	S
30C003-02		FI-10-139B	DIFFERENT SCALE RANGE.	01/16/91	S
30C003-02		ENHANCEMENT EM CROSSTIE CONN	MO-2-10-174, MO-2-10-176 GOES TO 'D' RHR LOOP ON U2. GOES TO 'A' RHR LOOP ON U3 (PANEL 30C003-04).	01/16/91	S
30C003-03		021-2524	METER SCALE IS DIFFERENT - 2ND RANGE IS TO THE RIGHT OF POINTER.	01/16/91	S
30C003-03		FR-2-10-143	BOTH PENS HAVE DIFFERENT SCALE RANGE, 0-50 VS. 0-25.	01/16/91	S
30C003-03		HEAD SPRAY INBD MO-2-10-032	NOT ON U3.	01/16/91	N

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C003-03		DIGITAL DISPLAY XI-80187E	INSTALLED AFTER U3 PHOTOS.	01/16/91	N
30C003-04		METERS	NO RED LINES ON METER FACES. 14A-M1A, 14A-M1C, 10A-A2A, 10A-A1A, 10A-A1C, 10A-A2C	01/16/91	S
30C003-04		FI-2-10-139A	DIFFERENT SCALE RANGE 0-50 VS. 0-25.	01/16/91	S
30C003-04		LI-2-02-3-113	DIFFERENT SCALE RANGE.	01/16/91	S
30C003-04		HEAD SPRAY OUTBD MO-2-10-033	NOT ON U3.	01/16/91	N
30C004B		TI-4806	NOT ON U3, LOCATED WHERE PI-3-23-111 IS LOCATED ON U3.	01/17/91	S
30C004B		HEAT UP BYPASS AO-4807	NOT ON U3.	01/17/91	S
30C004BX		SWITHCES	DO NOT HAVE WHITE POINTER ON SWITCHES.	01/15/91	N
30C004BX		ANNUNCIATOR WINDOWS A1-E1	SETPOINTS ENGRAVED	01/15/91	N
30C004BX		TI-8455 METER	DIFFERENT RANGE SCALE	01/15/91	S
30C004BX		PI-8458 METER	DIFFERENT RANGE SCALE	01/15/91	S
30C004BX		TI-8457	DIFFERENT STYLE OF SCALE	01/15/91	S
30C004BX		LI-8456	DIFFERENT STYLE OF SCALE	01/15/91	S
30C004BX		FI-2-23-141	DIFFERENT EU'S ON SCALE	01/15/91	S
30C004BX		SPI-4505X	DIFFERENT COLOR LAM "TURBINE"	01/15/91	N
30C004BX		ANNUNCIATOR	RESET AND TEST BUTTONS ARE LABELED WITH LAM'S, NOT BACKPLATES	01/15/91	N
30C004BX		FI-2-10-178, DPI 2-10-179	LAM'S ON THESE METERS SAY THEY ARE RHR "B" - NOT "D"	01/15/91	N
30C004BX		SV-2-23-054	SWITCH BACKPLATE "CLOSE-OPEN" IS MISSING	01/15/91	S
30C004BX		MO-2-10-089B, MO-2-10-016B	PHYSICALLY REVERSED AND BLUE ENHANCEMENT IS OFFSET	01/15/91	S
30C004BX		9 CONTROL SWITCHES "RHR TRANSFER/ISOL"	DO NOT HAVE WHITE POINTERS	01/15/91	N
30C004BX		DC POWER BREAKER	LABELS "MAIN" AND "ON", "OFF", AND "CAUTION-DOES NOT PROVIDE-", AND "ITE PANEL"	01/15/91	S

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C004BX		DC BREAKERS	DIFFERENT TYPE OF BREAKERS	01/15/91	S
30C004BX		DC BREAKERS	SOME OF BREAKERS NOT NUMBERED	01/15/91	S
30C004BX		AC MAIN BREAKER	"ITE" LABEL, "AC POWER" LAM DIFF. LOC., "MAIN" LABEL, "ON", "OFF" LABELS	01/15/91	S
30C004BX		SHEET METAL PRINT POCKET UNDER AC BKRS	PRINT POCKET MISSING	01/15/91	N
30C004BX		LABEL	LARGE BLACK LAM ON SIDE OF PANEL "HPCI ALT. SHUTDOWN PANEL".	01/15/91	N
30C004BX		STAND	OPERATOR SUPPORT STAND ON SIDE OF PANEL DOES NOT EXIST IN SIMULATOR.	01/15/91	N
30C004BX		LABEL	BIG BLACK LAM MISSING AT TOP OF PANEL.	01/15/91	S
30C004BX		SWITCH PLATES	SWITCH PLATES ENGRAVED "EMERG" NOT "EMERGENCY".	01/15/91	N
30C004BX		LABEL	YELLOW LAM MISSING "LI-2-02-3-112".	01/15/91	S
30C004BX		ENHANCEMENT	ENHANCEMENTS AROUND REACTOR P, L, T METERS IS DIFFERENT.	01/15/91	S
30C004BX		ENHANCEMENT	DIFFERENT COLOR ENHANCEMENT AROUND DRYWELL METERS.	01/15/91	S
30C004C		MO-4244	HAS DIFFERENT TYPE OF HANDLE, NO POINTER.	01/17/91	N
30C004C		13A-524	U3 HAS NO BACKPLATE "MANUAL ISOLATION".	01/17/91	S
30C004C		MO-2-13-041	U3 IS MISSING IT'S POINTER.	01/17/91	N
30C005B		CLOCK	LAMICOID BELOW CLOCK ON SIM.	01/17/91	N
30C005B		PHONE PAGE	PHONE PAGE MOUNTED LOWER ON SIM.	01/17/91	N
30C006B		MSDT DRAINS TO 4TH HEATER SWITCHES	A, B, & C SWITCHES ON SIM. LABELED NORM IN CENTER POSITION	01/17/91	N
30C008B		MSIV TIGHTNESS TEST SWITCH	ON-OFF SWITCH OPPOSITE ON SIM. HARDWARE MOUNTING, THEREFORE LABELING AND ENHANCEMENT DIFFERENT ON SIM.	01/17/91	S
30C008B	TR-2400	GENERATOR ROTOR TEMP RECORDER	SCALE LINEAR ON SIM.	01/17/91	S

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C008B		EOC-EHC PRES TEST OVERRIDE SW.	SWITCH IS ON SIM. NEXT TO VIB PHASE ANGLE SELECTOR.	01/17/91	N
30C008B		SHAFT VOLTAGE TEST SWITCH	COLLAR IS RED ON SIM.	01/17/91	N
30C008B		FUSE BLOCK	FUSE BLOCK IS NOT LABELED ON SIM.	01/17/91	N
30C010	FR-0470	MAIN STACK FLOW	SIM: INSTALLED ON 20C010	01/17/91	N
30C010	RIS-8394	OFF-GAS ADSORBER	NOT INSTALLED ON SIM YET	01/17/91	A
30C010	FIC0760B,		SIM: HAS CONTROL ROOM & VENT STACK EXHAUST CONTROLLERS ON SIM.	01/17/91	N
30C010	FIC0760, F		ON SIM (CONTROL ROOM) ON UNIT 3 (RADWASTE BLDG)	01/17/91	N
30C010	FIC/RIS 07		U-3 HAS RADWASTE BLDG EXHAUST FLOW AND RADIATION MONITOR, SIM HAS CONTROL ROOM SUPPLY MONITORS.	01/17/91	N
30C012	OCV020	STANDBY GAS TREATMENT FAN CONTROLS	OCV020 CONTROLS ARE ON 30C012, OAV- & OBV020 ARE ON 20C012	01/16/91	N
30C013		TIP RECORDER	SCALES DIFFERENT ON XY PLOTTER	01/17/91	S
30C013		TIP MACH 1	MAN. VALVE CONTROL LABELED ON SIM.	01/17/91	N
30C013		FLUX AMPLIFIERS	SWITCHES LABELED ON SIM.	01/17/91	N
30C015 CHANNEL	16A-DS190	RELAY END	CLEAR LENS U/3 RED LENS SIM	01/16/91	N
30C015 CHANNEL	16A-DS257A	RELAY END	CLEAR LENS U/3 WHITE LENS SIM	01/16/91	N
30C015 CHANNEL	16A-576A	TRIP LOGIC TEST SW	TAG MISSING ON U/3	01/16/91	N
30C015 CHANNEL		ALL RELAYS	SIM MISSING LAM. TAPE ON INSIDE OF RELAY	01/16/91	S
30C015 CHANNEL		OPERATOR AND S89-43	U/3 MISSING UP AND NEXT TO 'A' RPS POWER SUPPLY C.S. (5BS1A)	01/16/91	N
30C015 CHANNEL		ALL RELAYS	MISSING LAM. TAPE ON SIM	01/16/91	S
30C015 CHANNEL	16A-DS190C	RELAY END	U/3 CLEAR LENS SIM RED LENS	01/16/91	N
30C015 CHANNEL			U/3 HAS NO SPARE RELAY NEXT TO 16A-K7X RELAY, SIM DOES	01/16/91	N

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C017 B2 PANEL		ALL RELAYS	ALL U/3 RELAYS HAVE LAM TAPE SIM DOES NOT	01/16/91	S
30C017 B2 PANEL	16A-DS190B	RELAY IND.	SIM RED LENS U/3 CLEAR LEN.	01/16/91	N
30C017 B2 PANEL			SPARE RELAY NEXT RIGHT OF TO 16A-K7BX DOES NOT EXIST IN SIMULATOR	01/16/91	N
30C017 B2 PANEL		OPS AID S89-42	DOES NOT EXIST ON U/3 (NEXT TO RPS XFER SW 5B SIB)	01/16/91	N
30C017 B2 PANEL	6A-K18B	RELAY FOR S/D SCRAM RESET	MISSING TAG ON U/3	01/16/91	N
30C017 B2 PANEL		ALL RELAYS	LAM-TAPE ON RELAYS ON U/3 SIM DOES NOT HAVE TAPE	01/16/91	S
30C017 B2 PANEL	16A-DS1900	RELAY IND	U/3 - CLEAR LENS SIM RED LENS	01/16/91	N
30C021	TR 2-13-13	AREA TEMP RECORDER	POINT ID CARD ON SIM. HAS ALARM SETPOINTS	01/17/91	N
30C022A	563P	GEN XFMR SUDDEN PRESS RELAY	U/3 - LABELED 563P SIM - LABELED 5634	01/17/91	S
30C022A	585P1	TEST METER	LAMOCORD IS ABOVE METER ON U/3 ON SIM BELOW METER.	01/17/91	N
30C022A	A1512	TEST SW METER DEVICE A1512	LABELED PILOT WERE #1 PAIR ON SIM.	01/17/91	S
30C022A		LAMOCOID	NO [illegible] ON SIMULATOR.	01/17/91	S
30C022A		LAMOCOID C022A	FUSE LAMOCOID U/3 F1-F16 SIM F1-F18	01/17/91	N
30C022B	A1512	TEST SW	U/3 - LABELED A1512 TEST SW SIM - LABELED PILOT WIRE #2 PAIR	01/17/91	S
30C022B	345	NEG SEQ RELAY	DIFFERENT RELAY ON U/3 THAN SIM.	01/17/91	N
30C022B	302-05	AUTO TRANSFER BKR TIMER	NO RELAY IN CAB. ON SIMULATOR.	01/17/91	S
30C022B		DEMAND METERING RELAYS	NONE ON SIM U/3 HAS RELAYS.	01/17/91	S
30C037		APRM E	YELLOW LIGHTS ON SIM.	01/17/91	N
30C037		LPRM B	AMBER LIGHTS ON SIM. BLANK LAICOID NOT ON SIMULATOR	01/17/91	N

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C037		APRM C & F	YELLOW LIGHTS ON SIMULATOR	01/17/91	N
30C037		RBM'S	RED LABELED INPUTS NOT ON SIMULATOR	01/17/91	S
30C037		APRM A & D	YELLOW LIGHTS ON SIMULATOR	01/17/91	N
30C037		LPRM A	AMBER LIGHTS ON SIMULATOR BLANK LAMICOID MISSING ON SIMULATOR	01/17/91	S
30C037		APRM B	YELLOW LIGHTS ON SIMULATOR	01/17/91	N
30C04A		2A-S2B, 2A-S2A	"RESET" BACKPLATE	01/16/91	N
30C04A		2AP137,2BP137,2CP137 ,2DP137,2EP137	DIFFERENT TYPE SWITCHES - DO NOT HAVE TARGETS	01/16/91	N
30C04A		X1-B01B7D	INSTALLED ON U3 AFTER PHOTOS	01/16/91	N
30C04A		F1-2-10-142	NOT ON U3	01/16/91	S
30C04A		F1-2-12-134	SCALE DIVISIONS MARKED DIFFERENTLY	01/16/91	S
30C04A		HEAD SPRAY FLOW CONTROLLER, CV-2-10-043	NOT ON U3	01/16/91	N
30C04A		CV-2-12-055	NO LAM. "CONTROLLER OUTPUT"	01/16/91	S
30C04A		T1-0762	NOT ON U3	01/16/91	S
30C04A		L1-0254	NOT ON U3	01/16/91	S
30C04A		COOLING TWR PP AMP METERS	D & E (U3) RANGE IS 0-400 A, B, & C (U2) RANGE IS 0-300	01/16/91	N
30C04A		TBCCW RESET, SV-2352/SV-2354	"RESET" BACKPLATE	01/16/91	N
30C04A		OAP088, OAE031-A, OAE031-B	"A" COOLING TWR NOT ON U3	01/16/91	N
30C04A		FR-20008, DPI-20001, DPI-20002	NOT ON U3 (SBGTS FILTER)	01/16/91	N
30C04A		AO-00475-1&2, AO-00476-1&2 SBGTS FILTERS	NOT ON U3	01/16/91	N
30C04A		PB-00522,PB-00534A,P B-00533	NOT ON U3	01/16/91	N
30C04A		DPI-20003-4, DPI-20003-3 UNIT 3 DP	NOT ON U3	01/16/91	N
30C04A		(2) 180 METERS "0-100% OPEN"	NOT IN SERVICE NOT ON U3	01/16/91	N

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C04A		CONTROL ROOM DAMPERS SV-00153,154,180	NOT ON U3	01/16/91	N
30C04A		STACK DILUTION FANS OAV021,OBV021,OCV021	NOT ON U3	01/16/91	N
30C05A		2AS020, 2BS020, 2CS020	BACKPLATES NOT ENGRAVED "STOP - AUTO - START - ENGAGE".	01/16/91	S
30C05A		FEEDPUMP BYPASS CONTROLLER CV2558	DIFFERENT TYPE OF CONTROLLER.	01/16/91	M
30C05A		PR/LR 2-06-096 RED PEN	DIFFERENT SCALE 0-15X100 VS. 0-1500.	01/16/91	S
30C05A		LI-2-02-3-085A, LI-2-02-3-085B	RED BAND ON SCALES, SCALE MARKINGS DIFFERENT.	01/16/91	S
30C05A		PI 2-06-090A, 090B	YELLOW LEGEND.	01/16/91	S
30C05A		XI-80187B, XI-80187C, XIS-80193	INSTALLED IN U3 AFTER PHOTOS, COMPUTER TREND RECORDER REMOVED.	01/16/91	N
30C05A		ROD SEL POWER 3 AS1	DIFFERENT TYPE OF SWITCH.	01/16/91	N
30C05A		ROD SEQ CONTROL SYS-SW 3A	REMOVED FROM U2. RSCS IS FUNCTIONALLY REMOVED FROM U/3.	01/16/91	N
30C05A		ROD SEQ SW 3A-START/SHUT MOD SW 3A-SEQ	REMOVED FROM U2. RSCS IS FUNCTIONALLY REMOVED FROM U/3.	01/16/91	N
30C05A		RWM CONSOLE "INOP/RESET" LOGO	LOGO IS BENEATH THE WRONG SWITCH ON SIMULATOR.	01/16/91	S
30C07A		OFFGAS [illegible] PUMP STEAM METER	DIFFERENT SCALE 0-12 X 103 VS. 0-120 X 100.	01/16/91	S
30C07A		DEMIN MAKEUP TO RST AO-0758	SWITCH NOT ON U3 IND. LIGHTS NO ON U3.	01/16/91	N
30C07A		DIGITAL DISPLAY XI-80187A	HAS BEEN PUT ON U3 SINCE PICTURES WERE TAKEN.	01/16/91	N
30C07A		ANNUNCIATOR BUTTONS ACK, RESET, TEST	BUTTONS PHYSICALLY REVERSED.	01/16/91	N
30C07A		PI-2405, PI-2324, PI-2404, PI-2406	METER LEGENDS ARE DIFFERENT.	01/16/91	S
30C07A		PR 2865 BLUE PEN	DIFFERENT SCALE, 0-60 VS. 0-10 ON U3.	01/16/91	S
30C07A		POR-2660 RED PEN	DIFFERENT SCALE 0-50 VS 0-25 ON U3.	01/16/91	S

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C07A		TURBINE SPEED METER	SCALE IS DIFFERENT RANGE, 0-200 VS 0-120 ON U3.	01/16/91	S
30C07A		TURBINE RESET PUSHBUTTON	HINGED COVER OVER SWITCH - NONE ON U3.	01/16/91	N
30C07A		TURBINE RESET PUSHBUTTON	BLACK RING ON SWITCH, U3 HAS GREEN RING.	01/16/91	N
30C11	ARM 3.5	ARM	SIM: BLANK PLATE UNIT 3: ARM 7.. INSTALLED "NEW FUEL STORAGE AREA INSIDE VAULT 205 ELEV"	01/17/91	N
30C203BB		ANNUNCIATOR B-3	SIM. HAS SLIGHTLY DIFFERENT WORDING THAN U/3	01/16/91	S
30C204L	B-1	ANNUNCIATOR	B-1 ON U/3 DOES NOT INCLUDE WHICH TR DRIVES THE ALARM, SIM. DOES	01/16/91	S
30C204M	B-1	ANNUNCIATOR	SIM. DOES NOT SAY SYSTEM TROUBLE ON SAME LINE U/3 DOES	01/17/91	N
30C204M	B-2	ANNUNCIATOR	U/3 "A" MG SET OVER CURRENT TRIP SIM "A" RECIRC PP MOTOR LOCKED ROTOR TRIP	01/17/91	S
30C204M	G-2	ANNUNCIATOR	U/3 "B" MG SET OVER CURRENT TRIP SIM "B" RECIRC PP MOTOR LOCKED ROTOR TRIP	01/17/91	S
30C204M	E-3	ANNUNCIATOR	U/3 DOES NOT HAVE RWCU HI VIB. ALARM, SIM. DOES, IT IS ON 30C204R D-1	01/17/91	N
30C204R	D-1	ANNUNCIATOR	U/3 RWCU PP VIB. ALARM SIM - F/P DEMIN TROUBLE	01/16/91	N
30C205LL	B-1	ANNUNCIATOR	DIFF. ANN. U/3 RECOMBINER AIR LOCK SEAL ALARM SIM. - U/2 SEWAGE WET PIT VENT. LOW FLOW (COMMON)	01/16/91	N
30C205LL	B-2	ANNUNCIATOR	BLANK U/3 SIM = WATER TREAT. EYEWASH	01/16/91	N
30C205LL	B-3	ANNUNCIATOR	BLANK U/3 SIM = ADMIN EYEWASH	01/16/91	N
30C205LL	C-5	ANNUNCIATOR	BLANK U/3 SIM = TURB BUILD ELEVATOR	01/16/91	N

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C205LL	D-1	ANNUNCIATOR	BLANK U/3 SIM = CHEM LAB EYEWASH	01/16/91	N
30C205LL	D-2	ANNUNCIATOR	BLANK U/3 SIM = CSR CO2 DISCH.	01/16/91	N
30C205LL	D-3	ANNUNCIATOR	BLANK U/3 SIM = DIESEL FIRE PP SPRINKLER	01/16/91	N
30C205LL	D-4	ANNUNCIATOR	U/3 BLANK SIM = U/2 TURB CENTRAL FIRE ALARM	01/16/91	N
30C205LL	D-5	ANNUNCIATOR	U/3 BLANK SIM = U/2 TURB SOUTH FIRE ALARM	01/16/91	N
30C205LL	E-2	ANNUNCIATOR	U/3 BLANK SIM = CSR CO2 UNACTIVATED	01/16/91	N
30C205LL	E-3	ANNUNCIATOR	U/3 HPCI CO2 UNACTIVATED SIM = RECOMBINER VENT PANEL TROUBLE	01/16/91	N
30C205LL	E-4	ANNUNCIATOR	U/3 = U/3 TURB. CENT. FIRE ALARM SIM = HPCI ROOM CO2 UNACTIVATED	01/16/91	N
30C205LL	E-5	ANNUNCIATOR	U/3 = U/3 TURB. NORTH FIRE ALARM SIM = ADMIN SPRINKLER	01/16/91	N
30C205R	H-2, H-4,		ALARMS H-2, H-4, E-5 AND H-5 DO NOT EXIST ON SIM. (RSCS REMOVED ON U/2)	01/16/91	N
30C205RR		212 ANN. PANEL	FULL ON SIM. WITH COMMON ESW, ECW ALARMS	01/17/91	N
30C206L		COMMON ANN. ON PANEL 301	SIM. CONTAINS COMMON ANN. U/3 DOES NOT. SEE ATTACHED PHOTO	01/16/91	N
30C207C		COMMON ANNUNCIATORS	SIM. CONTAINS COMMON ANN. NOT FOUND ON U/3. SEE ATTACHED PHOTO	01/16/91	N
30C207R	G-2, G-3	ANN. PANEL 304	2 U/3 ANN. NOT ON U/2 OR SIM. PANEL - THESE ARE ON 20C208L IN U/2 (D2,D3)	01/16/91	N
30C207R	G-5	ANNUNCIATOR	1 U/3 ANN. DIFF. THAN SIM.	01/16/91	N
30C208L	A-3	ANNUNCIATOR	U/3 A-3 IS LOCATED ON B-4 ON SIM.	01/16/91	N
30C208L	D-2	ANNUNCIATOR	U/3 D-2 IS LOCATED ON E-3 ON SIM.	01/16/91	N
30C208L	E-3	ANNUNCIATOR	U/3 E-3 IS LOCATED ON A-3 ON SIM.	01/16/91	N

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C208L	D-3	ANNUNCIATOR	ALARM D-3 IS NOT ON 205 PANEL IN SIM. IT IS ON 30C208R.	01/16/91	N
30C208L	D-2, D-3	ANNUNCIATOR	ALARMS D2 & D3 ARE REPLACED BY RHR COND. ALARMS (20C207R D-2, D-3)	01/16/91	N
30C208R	F-1	ANNUNCIATOR	ALARM F-1 IS BLANK ON U/3 ON SIM. (AND U/2). THIS ALARM ON U/3 IS ON PANEL 30C208L, D-3	01/17/91	N
30C212L	A-4, A-5	ANNUNCIATOR	EARTHQUAKE ALARMS DO NOT EXIST HOWEVER THEY ARE NECESSARY FOR TRAINING FOR EP CLASSIFICATION	01/17/91	M
30C212L	B2, B3, B4	ANNUNCIATOR	S/B (JOY) COMP. ALARMS ON U/3 ON SIM. B2 = AUX BOILER FUEL OIL TANK SUMP HI LEVEL B3 = AUX BOILER TROUBLE B4 = A CT LEFT PP TROUBLE	01/17/91	N
30C212L		COMMON ANNUNCIATORS	THE FOLLOWING ALARMS EXIST ON U/2 (COMMON ON EQUIP) AND NOT ON U/3: E-1 THRU 4 F-2 THRU 4 G-4&5 H-4&5 J-4&5 K-2&5 L-2 THRU 5	01/17/91	N
30C212R	A-1, A-2,	ANNUNCIATOR	A-1 THRU A-3 DIFFERENT ON SIM. THAN U/3 (COOLING TOWERS)	01/16/91	N
30C212R	B-2, C-2,	ANNUNCIATOR	B, C, D-2 THRU 4 BLANK ON U/3 NOT ON SIM. (COOLING TOWERS)	01/16/91	N
30C212R	L-2 THRU L	ANNUNCIATOR	L-2 THRU L-5 DIFFERENT ON SIM. THAN ON U/3 (COOLING TOWERS/SGTS)	01/16/91	N
30C212R		ANNUNCIATOR	K-1 THRU 4 DIFFERENT ON SIM. THAN ON U/3 (COOLING TOWER/SGTS)	01/16/91	N
30C236L	B-2	ANNUNCIATOR	NO ALARM ON B-2 ON SIM. (MOD WILL INSTALL)	01/16/91	N
30C236L	B-4, B-5	ANNUNCIATOR	NO ALARMS ON B-4 AND B-5 DUE TO DIFFERENCES IN PLANT DESIGN.	01/16/91	N
30C284		ALL ANN. ON PANEL	ANNUNCIATORS ARE IN DIFF. LOCATIONS ALSO SIM. HAS 1 COMMON ANN. U/3 DOES NOT HAVE	01/17/91	N

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
30C484		FR-4957B/4957, FR-4947A/4954	RECORDER IS HORIZONTAL, NOT VERTICAL.	01/16/91	S
30C484		HCS-4957, HCS-4954	LAM'S ON CONTROLLER ARE DIFFERENT.	01/16/91	S
30C484		SOLENOID SWITCHES	SOLENOID VALVE SWITCHES ARE A DIFFERENT TYPE - HAVE NO LAMP INDICATORS. SV# 4950A,B,C & D 4951A,B,C & D 4960A,B,C & D 4961A,B,C & D	01/16/91	S
30C810		ALARM 330 D-1	DOES NOT EXIST ON U/3 (COMMON STORAGE TANK)	01/16/91	N
30C810		ALARM 330 E-1	DOES NOT EXIST ON U/3 (COMMON STORAGE TANK)	01/16/91	N
30C810		ALARM 330 D-3	DOES NOT EXIST ON U/3 (COMMON STORAGE TANK)	01/16/91	N
30C810	LI 7638	H2 STORAGE TANK LEVEL	DOES NOT EXIST ON U/3 COMMON TANK	01/16/91	N
30C810	PI 7537	H2 STORAGE TANK PRESSURE	DOES NOT EXIST ON U/3 COMMON TANK	01/16/91	N
30C810	LI 7635	O2 STORAGE TANK LEVEL	DOES NOT EXIST ON U/3 COMMON TANK	01/16/91	N
30C810	PI 7634	O2 STORAGE TANK PRESSURE	DOES NOT EXIST ON U/3 COMMON TANK	01/16/91	N
30C810	021, 8629A	DISS. O2 CONC.	METER GONE ON U/3	01/16/91	S
30C810		H2 SUPPLY LABEL	MISSING ON SIM. SEE ATTACHED PHOTO	01/16/91	S
30C810	66A-K9	O2 ENG TO CONCL	MISSING ON SIM.	01/16/91	S
3AC/BC271-272	TI-4945 A-	PANEL 270 STM TEMP IND	SLIGHTLY DIFF METERS ON U/3 THAN SIMULATOR.	01/16/91	N
3AC/BC271-272	TI 4940 A-	PANEL 271 STM TEMP IND	SLIGHTLY DIFF METERS ON U/3 THAN SIMULATOR.	01/16/91	N
3AC/BC271-272			SIMLATOR DOES NOT HAVE LAB INST SETPOINT TAP U/3 DOES.	01/16/91	N
3AC043		LI-2-02-3-085AX, LI-2-02-3-085BX	RED BAND ON SCALES NOT ON U/3	01/15/91	S
3AC043		PI-0236AX	PI NOT ON U/3	01/15/91	S
3AC043		2BP039		01/15/91	S

PANEL NUMBER	COMPONENT ID NUMBER	COMPONENT DESCRIPTION	DESCRIPTION OF DIFFERENCE	DATE VERIFIED	TRAINING IMPACT
3AC043		PI-0236BX	PI NOT ON U3.	01/15/91	S
3AC043		OBP057	SWITCH AND LAMPS NOT ON U3.	01/15/91	S
3AC043		GE-MAC POWER SUPPLY	ONE OF 2 IS MISSING.	01/15/91	S
3AC043		13A-956	NO 'RESET' BACKPLATE ON U3.	01/15/91	S
3AC043		POWER SUPPLY SWITCH	TOGGLE SW OPERATES SIDE-TO-SIDE, NOT UP AND DOWN.	01/15/91	S
3AC043		OMNI PHONE	PHONE ISN'T IN A BOX (LOCKED BOX-LABELED) LIKE U3.	01/15/91	N
3AC043		TEMP LABEL	LAM MISSING (GRAY ONE UNDER BIG WHITE ONE).	01/15/91	S
3AC1BC270	TEST SWITC	TEST SWITCH	U/3 HAS TABLE TEST PERMISSIVE ABOVE SEV. SIM DOES NOT.	01/16/91	S
3AC1BC270	TI 4935A-D	TEMP IND.	SLIGHTLY DIFF METERS IN U/3 THAN SIM.	01/16/91	N

PBAPS UNIT 3 DESIGN AND SYSTEMS
RELEVANT TO CONTROL ROOM
PERSONNEL

As shown on the attached list of systems simulated for the Unit 2 Simulator, the list of Unit 3 systems is the same as the list of Unit 2 systems. Note that this list includes all system common to both Units. The Unit 2 Certification submittal has evaluted this systems list for simulation of Unit 2 systems necessary to support PBAPS Unit 2 operations for the Normal Evolutions and Malfunctions required in Section 3.1 of the Standard. There are no additional systems required to support simulation of these evolutions for Unit 3.

PBAPS UNIT 2 SIMULATOR
SYSTEMS SIMULATED

The following is a complete list of the PBAPS Unit 2 & 3 systems listed from the System Operating Procedures, cross referenced to the systems simulated on the Unit 2 Simulator and identified by Singer ID.

PBAPS System ID	Singer ID	System Description
1A	MS	Main Steam
1B	MS	Turbine
1D	TC	Electrohydraulic Control (EHC)
1E	MS	Turbine Extraction Steam
1F	TU	Turbine Lube Oil
1G	AD MS	Automatic Depressurization System/ Safety Relief Valves
1H	MS	Turbine Seal Oil
2	RX RR	Reactor & Recirculation
2A	RR	Recirculation Pump & Valves
2C	RR	Recirculation Motor-Generator Lube Oil
2D	RR	Recirculation Motor-Generator
3	RD	Control Rod Drive (CRD)
5	FW	Condensate
5A	FW	Condensate Demineralizers, Precoat and Backwash System
6	FW	Feedwater
6B	FW	Feedpump Turbine Lube Oil
6C	FW	Feedpump
6D	FW	Feedpump Turbine
7	PC	Primary Containment
7B	PC	Containment Atmosphere Control (CAC)

PBAPS System ID	Singer ID	System Description
7C	PC	Containment Atmosphere Dilution (CAD)
7D	PC	Drywell & Torus Oxygen Sampling (CAC)
7E	PC	Drywell & Torus Oxygen Sampling (CAC)
8	OG	Off-Gas & Recombiner
8A	OG	Steam Jet Air Ejectors (SJAE)
8B	OG	Recombiner
8C	OG	Hydrogen Analyzers
8E	OG	Mechanical Vacuum Pump
8F	OG	Steam Packing Exhauster (SPE)
8G	OG	Glycol System
9A	PC	Standby Gas Treatment (SGBT)
10	RH	Residual Heat Removal (RHR)
11	SL	Standby Liquid Control (SBLC)
12	CU	Reactor Water Cleanup (RWCU)
12A	CU	RWCU Demineralizers, Precoat and Backwash Systems
13	RC	Reactor Core Isolation Cooling (RCIC)
13B	RC	RCIC Pump
14	CS	Core Spray
14A	CS	Torus Water Cleanup
15	HC	Hydrogen Water Chemistry
16	IA	Instrument Nitrogen System
16A	IA	Backup Instrument Nitrogen to ADS
16B	IA	Backup Seismic Instrument Nitrogen
18	NOT SIMULATED	Fuel Handling
19	PC	Fuel Pool Cooling

PBAPS System ID	Singer ID	System Description
19A	NOT SIMULATED	Fuel Pool Cooling Demineralizers, Precoat and Backwash System
20A	PC LD	Floor Drain Collection
20C	PC LD	Liquid Process & Disposal
20D	NOT SIMULATED	Solid Process & Disposal
23	HP	High Pressure Coolant Injection (HPCI)
24	MS	Auxiliary Steam
25A	NOT SIMULATED	Sewage Collection
25B	NOT SIMULATED	Sewage Processing
27	FW	Condensate Transfer and Storage
28A	MC	Circulating Water
28B	MC	Cooling Towers
28C	NOT SIMULATED	Circulating Water Sampling
28D	FW	Low Pressure Lube Water
29	NOT SIMULATED	Traveling Water Screens
29G	NOT SIMULATED	Deicing Air
29H	NOT SIMULATED	Trash Rake
30	SW	Service Water
30B	FW	High Pressure Lube Water
32	SW	High Pressure Service Water (HPSW)
33	SW	Emergency Service Water (ESW)
34	SW	Turbine Building Closed Cooling Water (TBCW)
35	SW	Reactor Building Closed Cooling Water (RBCW)
36A	IA	Service Air
36B	IA	Instrument Air
36C	NOT SIMULATED	Low Pressure Air

PBAPS System ID	Singer ID	System Description
36D	IA	Standby Service Air (JOY Compressor)
36E	NOT SIMULATED	Breathing Air
36F	NOT SIMULATED	Radwaste Air
36G	NOT SIMULATED	Condensate Demin Air Surge Backwash
36J	NOT SIMULATED	Adminstration Building Compressed Air
38A	NOT SIMULATED	Raw Water System
38B	NOT SIMULATED	Domestic Water System
38C	FW	Makeup Water System
38D	FW	Demineralized Water Distribution System
40A	HV	Turbine Building Ventilation
40B	PC	Reactor Building Ventilation
40C	PC	Drywell Ventilation
40D	HV	Control Room Ventilation
40K	NOT SIMULATED	Recombiner Building Ventilation
40L	NOT SIMULATED	Radwaste Building Ventilation
40M	NOT SIMULATED	Recirculation Motor Generator Set Ventilation
40P	NOT SIMULATED	Unit #1 Ventilation
44A	PC	Drywell Chilled Water
44B	NOT SIMULATED	Control Room Chilled Water
45	NOT SIMULATED	Security Systems. Lighting & Door Locks
46	NOT SIMULATED	Hypochlorite
48	SW	Emergency Cooling Water & Tower
50	EG	Main Generators
50A	EG	Stator Water Cooling
50B	EG	Hydrogen Seal Oil

PBAPS System ID	Singer ID	System Description
50C	EG	Hydrogen and Carbon Dioxide
50D	EG	Isophase Bus Cooling
50G	EG	Alterex
51	NOT SIMULATED	Substations and Transmission
52A	DG	Diesel Engine
52B	DG	Diesel Generator & Controls
52C	DG	Diesel Starting Air
52D	DG	Diesel Fuel Oil
52E	DG	Diesel Jacket Cooling
52G	DG	Diesel Lube Oil
52J	NOT SIMULATED	Unit #1 Diesel Generator and Controls
53	ED	13 KV Electrical System
54	ED	4 KV Electrical System
55	ED	480 Volt Load Centers
55E	ED	480 Volt Emergency Load Centers
56	ED	480 Volt Motor Control Centers
56A	ED	480 Volt Lighting Load Centers
56E	ED	480 Volt Emergency MCC's
57A	ED	250 VDC
57B	ED	125/250 VDC
57C	ED	24/48 VDC
57D	NOT SIMULATED	Cardox 125 VDC
57E	ED	Emergency Lighting DC Systems (Static Inverters)
57F	NOT SIMULATED	Cathodic Protection
57G	ED	D&E Cooling Tower 125 VDC

PBAPS System ID	Singer ID	System Description
58A	ED	Vital AC
58B	ED	Uninterruptible AC (Static Inverter & Static Switch)
58C	ED	Normal 120/208 VAC
58D	ED	Emergency 120 VAC Lighting
59A	YC	High Speed Process Computer
60A	NM	APRM & LPRM Instrumentation
60E	NM	Traversing In-Core Probe (TIP) Instrumentation & Indexer
60F	RP	Reactor Protection System (RPS) Instrumentation & Logic System
62	RD	Reactor Manual Control (RMC)
62A	RD	Rod Worth Minimizer (RWM)
62B	RD	Rod Sequence Control (RSCS)
62C	RD	Rod Position Indication (RPIS)
63B	RM	Off Gas Radiation Monitoring
63D	RM	Drywell High Range Radiation Monitoring
63E	RM	Vent Stack Radiation Monitoring
63F	RM	Main Stack Radiation Monitoring
63H	RM	High Pressure Service Water (HPSW) Radiation Monitoring
63L	RM	Control Room Radiation Monitoring
63M	RM	Radwaste Radiation Monitoring
63N	RM	Recombiner Ventilation Exhaust Radiation Monitoring
94E	NOT SIMULATED	Seismic Monitoring
94F	PC	Suppression Pool Temperature Monitoring

PBAPS UNIT 2 - UNIT 3
PROCEDURES COMPARISON

An analysis of the differences between PBAPS Unit 2 and Unit 3 procedures has been performed. The identified differences have been evaluated for the impact of using the simulator for training and examining on Unit 3 according to the following criteria:

NONE or NO	(N)	- the difference is negligible and will have no impact on simulator training or simulator examinations.
SLIGHT	(S)	- the difference is little; and is such that it is not likely to cause an operator error and any errors caused are readily recoverable.
MODERATE	(M)	- the difference is little; and is of a magnitude that operator disorientation and error are possible, but that unrecoverable errors are unlikely.
LARGE	(L)	- the difference is large and is likely to cause operator disorientation and and can easily lead to unrecoverable errors.

A summary of the analysis and evaluation is presented in the accompanying report.

Date of report: 01/29/91

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
AO-12.1	PLACING THE RWCU SYS IN SRVC & OUT OF SRVC DRG OTGS WHEN THE "B" FW LP IS BLKD	N	Differences are due to physical differences in the plant. U/2 RWCU is routed into the 'B' loop RHR. U/3 RWCU is routed into 'A' loop RHR. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
GP-2	NORMAL PLANT START-UP	S	There are slight differences in core Keff between U/2 & U/3. This is due to the different fuel loading. This also accounts for the different rod pull/stuff sheets. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
GP-3	NORMAL PLANT SHUTDOWN	S	There are slight differences in core Keff between U/2 &

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			U/3. This is due to the different fuel loading. This also accounts for the different rod pull/stuff sheets. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
ON-119	LOSS OF INSTRUMENT AIR - PROCEDURE	M	IS NOW ONLY FOR U/2 (U/3 USES SP1382). All procedures dealing with the station air compressor are now different. The U/2 air compressor mod is complete. The U/3 air compressor mod is scheduled for completion in Jan. 1991. At that time the plants and respactive procedures will be the same. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 10.1.A-2	RESIDUAL HEAT REMOVAL SYSTEM SET UP FOR AUTOMATIC OPERATION	S	MO-3-10-16A in Unit 3 is provided with two power supplies with an automatic transfer: this valve is a normally closed valve, with a spring return to normal control switch (no maintained contacts). MO-2-10-16A in Unit 2 has a single power supply; this valve is a normally open valve, with a spring return to normal control switch with memory maintaned contacts. The differences are due to different applications of Appendix R modifications. The procedural differences are in system normal lineup and indication. These should have only a slight impact on operator training related to Unit 3. Other difference in interlocks exist between the two units; these have little procedural significance. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			Certification, the results would have been unsatisfactory.
SO 10.1.B-2	RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN COOLING MODE MANUAL START	M	Differences are due to mods (Appendix 'R'). On U/2 MO-160 is normally open - it must be closed to start S/D clg because it is interlocked with MO-17. It also must be re-opened after S/D clg is secured for normal plant lineup - U/3 does not have this mod. Also for procedure SO 10.1.B-2, on U/2 the proce... specifies that the 'D' pump is the preferred pp for S/D clg but the U/3 procedure does not specify a preferred pump. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
S...1.C-2	RESIDUAL HEAT REMOVAL SYSTEM PRECISE REACTOR TEMPERATURE CONTROL	S	Differences due to physical location of a valve in the plant on U/2. The manual B/P and the MO-89 valve is on the 'D' RHR heat exchanger on U/3 its the 'A' heat exchanger. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
SO 10.1.D-2	RESIDUAL HEAT REMOVAL SYSTEM TORUS COOLING	M	Physical Differences: On U/2 the preferred loop for torus clg is the 'B' loop. On U/3 its the 'A' loop. This is because of where HPCI and RCIC discharge into the torus. The preferred loop takes suction in the vicinity of the HPCI & RCIC turbine exhaust and returns to the torus near the same area. This difference is due to a difference between Unit 2 and

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
SO 10.2.B-2	RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN COOLING MODE SHUTDOWN	M	Differences are due to mods (Appendix 'R'). On U/2 MO-160 is normally open - it must be closed to start S/D clg because it is interlocked with MO-17. It also must be re-opened after S/D clg is secured for normal plant lineup - U/3 does not have this mod. On U/3 an alternative control switch exists for MO-17. It is located in the reactor recirc M/G set room and must be placed in the "S/D clg" position to open MO-17. There is also an alarm associated with this switch. Also for procedure SO 10.1.B-2, on U/2 the procedure specifies that the 'D' pump is the preferred pp for S/D clg but the U/3 procedure does not specify a preferred pump. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
SO 23.1.A-2	HIGH PRESSURE COOLANT INJECTION SYSTEM SETUP FOR AUTOMATIC OR MANUAL OPERATION	S	Differences are due to plant physical differences. U/2 HPCI has a small warm up valve around MO-16 (AO-4807). U/3 HPCI does not have this valve. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
SO 23.2.A-2	HIGH PRESSURE COOLANT INJECTION SYSTEM SHUTDOWN & RETURN TO STANDBY FRM OPRTN	S	Differences are due to plant physical differences. U/2 HPCI has a small warm up valve around MO-16 (AO-4807). U/3 HPCI does not have this valve. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
SO 23.7.C-2	HPCI SYSTEM RECOVERY FROM SYSTEM ISOLATION OR TURBINE TRIP	S	Differences are due to plant physical differences. U/2 HPCI has a small warm up valve around MO-16 (AO-4807). U/3 HPCI does not have this valve. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
SO 36A.1.A-2	SERVICE AIR SYSTEM STARTUP & NORMAL OPERATIONS	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 36A.1.B-2	AIR COMPRESSOR "C" RETURN TO SERVICE	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE.

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 36A.1.C-2	SERVICE & INSTRUMENT AIR SYSTEM LINEUP FOR NORMAL OPERATIONS	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 36A.2.A-2	SERVICE AIR SYSTEM SHUTDOWN	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 36A.2.B-2	AIR COMPRESSOR "C" SHUTDOWN	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 36A.7.A-2	LINING UP THE COMPRESSES AIR SYSTEM TO REMOVE THE "C" AIR COMPRESSOR FROM SERVIC	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 368.1.A-2	INSTRUMENT AIR SYSTEM STARTUP & NORMAL OPERATIONS	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 368.1.B-2	AIR COMPRESSOR "A" RETURN TO SERVICE	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 368.1.C-2	AIR COMPRESSOR "B" RETURN TO SERVICE	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 368.2.A-2	"A" INSTRUMENT AIR SYSTEM SHUTDOWN	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 368.2.B-2	"B" INSTRUMENT AIR SYSTEM SHUTDOWN	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 368.2.C-2	AIR COMPRESSOR "A", "B" SHUTDOWN	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 368.7.A-2	COMPRESSED AIR SYSTEM OPERATION WITH "A" COMPRESSOR OUT OF SERVICE	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME. This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 368.7.B-2	COMPRESSED AIR SYSTEM OPERATION WITH "B" COMPRESSOR OUT OF SERVICE	M	ALL PROCEDURES DEALING WITH THE STATION AIR COMPRESSOR ARE NOW DIFFERENT. THE U/2 AIR COMPRESSOR MOD IS COMPLETE. THE U/3 AIR COMPRESSOR MOD IS SCHEDULED FOR COMPLETION IN JAN. 1991. AT THAT TIME THE PLANTS RESPECTIVE PROCEDURES WILL BE THE SAME.

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			This difference is due to a modification which has not been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 5.2.B-2	REMOVING A FEEDWATER HEATER STRING FROM SERVICE	N	When removing a Feedwater heater string there are differences in allowable total Feedwater flow. On U/3 with any string OOS total F/W flow must =< 10.67 #m/hr On U/2 with A or B string OOS total F/W flow must =< 9.33 #m/hr On U/2 with C string OOS total F/W flow must =< 10.67 #m/hr Total feedwater flow and RFP suction pressure are both controlling paremeters during this evolution, with suction pressure limitations being the same. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
SO 7B.3.A-2	CONTAINMENT ATMOSPHERE PRESSURE CONTROL & NITROGEN MAKEUP	N	Differences are due to a mod. The 2" venting control valves from the drywell and torus (CV-4(5)957 and CV 4(5)954) are locked in position on U/2. On U/3 the valves are operable with a full range of movement. They also have new controllers. The simulator is ahead of the U/2 plant as it has the new controllers and full range valves. The mod will soon be completed on U/2, at which time both plants and their respective procedures will be the same. This difference is due to a modification which has been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
SO 7C.1.B-2	CAD SYSTEM NITROGEN ADDITION TO	N	Differences are due to a mod.

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
	CONTAINMENT DURING NORMAL OPERATIONS		The 2" venting control valves from the drywell and torus (CV-4(5)957 and CV 4(5)954) are locked in position on U/2. On U/3 the valves are operable with a full range of movement. They also have new controllers. The simulator is ahead of the U/2 plant as it has the new controllers and full range valves. The mod will soon be completed on U/2, at which time both plants and their respective procedures will be the same. This difference is due to a modification which has been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.
ST-3.8.2	SHUTDOWN MARGIN (U/2 - CYCLE 8)	N	There are slight differences in core Keff between U/2 & U/3. This is due to the different fuel loading. This also accounts for the different rod pull/stuff sheets. This difference is due to a difference between Unit 2 and Unit 3 "as built" physical configuration/controls. Training is provided on the "as-built" physical configuration/ controls of both units during the Licensed Operator Training Program and periodically during the Licensed Operator Requalification Program. Procedural differences arising from this difference are addressed during that training and during on-the-job training. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been unsatisfactory.
ST-4.11-2	A LPCI LINE VENT ACCUMULATOR & HEAD SPRAY ACCUMULATOR SWITCH FUNCTIONAL CHECK	N	A caution in the ST states not to open M034 for longer than a set amount of time. On U/2 - don't open M034 for > 60 sec. On U/3 - don't open M034 for > 20 sec. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-4.12-2	B LPCI LINE VE. CCUMULATOR LEVEL SWITCH FUNCTIONA. CHECK UNIT 2	N	A caution in the ST states not to open M034 for longer than a set amount of time. On U/2 - don't open M034 for > 60 sec.

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			On U/3 - don't open M034 for > 20 sec. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.10-2	HPSW PUMP AND VALVE OPERABILITY AND FLOW RATE TEST - UNIT 2	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.10F-2	HPSW PUMP AND VALVE OPERABILITY AND FLOW RATE TEST	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.11-2	RCIC PUMP, VALVE, FLOW & COOLER	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.11F-2	RCIC PUMP, VALVE, FLOW & COOLER FUNCTIONAL FLOW TEST	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics.

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.25-2	RHR/HPSW CROSSTIE FUNCTIONAL TEST	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.5F-2	HPCI PUMP, VALVE, FLOW, COOLER	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.6F-2	CORE SPRAY A LOOP PUMP, VALVE, FLOW, AND COOLER TEST - UNIT 2	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.7F-2	CORE SPRAY B LOOP PUMP, VALVE, FLOW, AND COOLER TEST - UNIT 2	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics.

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.8-2	UNIT 2 'A' RHR LOOP, PUMP, VALVE, FLOW AND UNIT COOLER FUNCTIONAL	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.8F-2	UNIT 2 'A' RHR LOOP, PUMP, VALVE, FLOW AND UNIT COOLER FUNCTIONAL FLOW TEST	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.9-2	UNIT 2 'B' RHR LOOP, PUMP, VALVE, FLOW AND UNIT COOLER FUNCTIONAL	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-6.9F-2	UNIT 2 'B' RHR LOOP, PUMP, VALVE, FLOW AND UNIT COOLER FUNCTIONAL FLOW TEST	N	The STs are different between the units because of either valve stroke times or allowable pump characteristics. This difference is due to a difference in physical

Procedure #:	Procedure Title	Training Impact Assessment	Description of Differences
			operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step reference. Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
ST-9.22-2A	SCRAM DISCHARGE VOLUME DRAIN AND VENT VALVE STROKING	N	The STs are different between the units because of valve stroke time specifications. This difference is due to a difference in physical operating characteristics of equipment or components between Unit 2 and Unit 3; primarily these differences are because of wear, aging, maintenance, and/or materials. The procedure is a test procedure (Surveillance or Routine) and is performed with step-by-step referer Had the Unit 3 procedure been tested for Simulator Certification, the results would have been the same as those for the tested Unit s procedure.
T-223	DRYWELL COOLER FAN BYPASS PROCEDURE	S	On U/2 - requires jumpers. A mod will soon be completed on U/2 making both plants the same. On U/3 - a switch on C05A B/P fan isol. This difference is due to a modification which has been incorporated on Unit 3. Both units are scheduled for modification, at which time the difference will no longer exist. Until that time, training on this difference is covered in the Licensed Operator Requalification Program and in required reading for Licensed Operators.

PBAPS UNIT 2 - UNIT 3
TECHNICAL SPECIFICATION
COMPARISON

A detailed comparison of the Technical Specifications for PBAPS Unit 2 and Unit 3 revealed the following differences:

1) The MCPR Operating Limit for the units is slightly different.

This difference is due to the Units being on different fuel cycles. Reactor Engineering has stated that the MCPR Operating Limit will be the same on both Units in their next cycle.

Since this is an administratively observed limit that does not directly impact Simulator performance (not related to automatic actions or alarms), it should have **no** impact on Unit 3 Simulator training and examinations. This difference is addressed in the Licensed Operator Training and Licensed Operator Requalification Programs.

2) 3.6.A.3 The minimum vessel temperature required for tensioning the head bolts is:

- ≥ 70°F. for Unit 2
- ≥ 100°F. for Unit 3

The Simulator is assumed to always operate with the vessel head in place, operations at less than 70°F. are not allowed. Starting with vessel temperatures less than 100°F. would violate the specification for Unit 3.

Since this is an administratively observed limit that does not directly impact Simulator performance (not related to automatic actions or alarms), it should have only **slight** impact on Unit 3 Simulator training and examinations. This difference is addressed in the Licensed Operator Training and Licensed Operator Requalification Programs.