UNIT 2 ~~WCC TRACKING~~

Y-05-01

2057

1 15 97

1 22 97

Equipment: Y-05-01
Equipment Name: PUMP
Physical Location: 66/20/OR JEFF
Sequence No: 01
Short Desc: REPLACE BREAKE

PLANNED:
Crew: ME
Shift: 2
Class: 420

WORK PROCEDURES:

Work Plan Description:
SEE ATTACHED WORK PLAN.
ALL QC, FME, AND PMT ADDRESSED IN ATTACHED WORK PLAN.

QC REVIEW REQUIRED: N

WORK PERFORMED: Replaced Breaker - works good

original WP w/ WO# 9612087, copy attached to this WO.

MCTW 027

11376

ACTUAL USED: CREW:
SHIFT:
WORKER CLASS: 420
NUMBER OF WORKERS: 2
TOTAL MANHRS: 4.5
TTL EXPOSURE/STEP (MREM):

PARTS USED LIST ATTACHED: Y / N
WO TAGS REMOVED: Y / N / NA
EMPLOYEE NUMBER: 12207
WORK COMPLETE DATE: 1/15/97
EMPLOYEE NAME:

* WORK COMPLETED *

Cause Failure Code: FM / EW / NFF
As Found-Out of Spec: Y / N / NA
Maint History Review Required: Y / N
Failed Component:
Corrective Action: REP/REF
Downtime:
LINE SUPERVISOR: 2054
NAME:
DATE: 1/15/97

* EQUIPMENT RETURN TO SERVICE *

none req'd

Operability Post Testing:
EQUIP. TAKEN OOS - DATE: / / TIME: RETURN DATE: / / TIME:
Op. Inability Procs Performed:
NON OPS SUPV:
NAME:
DATE:
OSS: PB0928
NAME:
DATE: 1/20/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 — WO 9612082, 9612084, 9612086, 9612087

UNIT 2 — December 16, 1996

1.0 PURPOSE

This WO work plan provides direction for the removal of breakers 2Y-05-01, 05, 06 & 10. Breakers 2Y-05-01, 05 & 10 will be replaced with Westinghouse EHD 1015 15 amp breakers. Breakers 2Y-05-06 will be replaced with Westinghouse EHD 1020 20 amp breaker.

2.0 INITIAL CONDITIONS

1. Reactor is in a cold shutdown **OR** de-fueled.
2. Verify loads listed in Return to Service steps ~~20~~ 15 through ~~23~~ 18 can be taken OOS. 1/15/97
3. Permission has been granted to remove/replace breakers 2Y-05-01, 05, 06 & 10.

3.0 ATTACHMENTS

3.1 Maintenance Electrical Safety Checklist, PBF-9044 form

3.2 Wire Removal Form, PBF-0036

4.0 REFERENCE DRAWINGS

None

5.0 MATERIALS

1. Westinghouse EHD 1015 breaker (Quantity 3)
2. Westinghouse EHD 1020 breaker (Quantity 1)

97

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 — WO 9612082, 9612084, 9612086, 9612087

UNIT 2 — December 16, 1996

Hold Point	Step No.	Work Plan Description	Worker	Date
NOTE		*Breakers 2Y-05-01, 05, 06, & 10 provide power to 2C39, 2C03 Turbine Supervisory, MOBs 242, 243, 272-277, 279, & MOBs 288-293, 296, 297, and 332.*		
	1	Verify initial conditions have been met.	OPS	1/15/97
CAUTION		**ALL COMPONENTS AND TERMINALS LOCATED IN THE PANEL ARE ASSUMED TO BE ENERGIZED, TAKE NECESSARY PRECAUTIONS.**		
	2	Responsible Engineer to perform a pre-job briefing to include scope of project, personnel safety, and installation.	RE	1/15/97
FME:		General FME Statement: Tools and equipment shall be checked for loose parts and debris and temporary covers should be installed for foreign material exclusion (FME) of system/components, per Exclusion of Foreign Material from Plant Components and systems, NP 8.4.10.		
	3	Verify that breakers 2Y-05-01, 05, 06, & 10 are in the "OFF" position **OR** coordinate with OPS to place breakers 2Y-05-01, 05, 06, & 10 in "OFF".	MTN	1-15-97
	4	Remove 2Y-05 panel cover. Post panel with appropriate "Danger alive" placards.	MTN	1-15-97
	5	Disconnect wiring from breakers 2Y-05-01, 05, 06, & 10, recording wires removed on PB-0036 Wire Removal Form.	MTN	1-15-97
	6	Remove breakers 2Y-05-01, 05, 06, & 10 from panel.	MTN	1-15-97
	7	Prior to installing the replacement breakers, cycle breakers five times per the following directions: 1. Close breaker 2. Trip breaker using the trip to test button(red) on breaker. 3. Open breaker. 4. Use continuity checks to verify proper positioning of breaker contact on final cycle (closed, trip free, and open. Acceptance Criteria: Closed ≤ 1 ohm / Open > 1 Mohm	MTN	1-15-97
	8	Install new Westinghouse EHD 1015 breakers in 2Y-05-01, 05, & 10. Install new Westinghouse EHD 1020 breaker in 2Y-05-06.	MTN	1-13-97
	9	Re-connect leads using attached PBF-0036 Wire Removal Form.	MTN	1-15-97

	10	Torque the load side leads per the following step. For breakers with capture wire connections, determine the wire size of the leads connected to the breaker and torque per the following table: **Wire Size** — **#14 to #10** — **#8** — **#6 to #4** — **#2 to #1/0** Torque Value (in/lbs) — 20 — 40 — 45 — 50 Record torque wrench MTE number and calibration date on the WO and work plan. MTE MCTW-027 Calibration Due Date 04/97	MTN	1-15-97
NOTE		***Use calibrated digital voltmeter for the following step.***		
PMT:	11	**POST MAINTENANCE TEST** A. Verify that each breaker reads 0 VAC on the load side of the breaker with the breaker open. B. Verify that each breaker reads a nominal 120 VAC on the load side of the breaker with the breaker closed. C. Position the breakers to the off position.	MTN see comments on pg 8 of 8.	1-15-97
FME:	12	Perform a Foreign Materials Exclusion inspection of panel to verify all tools and foreign materials are removed	MTN	1-15-97
	13	Reinstall panel cover.	MTN	1-15-97
	14	Record all QAR, MTE and Lot numbers on WO	MTN	1-15-97

2Y-05-01	15	RETURN TO SERVICE TESTING Verify power to the following loads: 1. 2C39 Turbine Electro Hydraulic control panel 2. 2MS-2026/2027 Turbine Stop valves open/close indicating lights 3. 2C03 ANN 2F 4-3, Turbine supervisory alarm	OPS See comments on PG BOTH.	1/16/97
2Y-05-05	16	RETURN TO SERVICE TESTING Verify power to the following loads: 1. 2C03 Turbine Supervisory Instruments	OPS	1/16/97
2Y-05-06	17	RETURN TO SERVICE TESTING Verify power to the following loads: 1. 2MS-2085-S, 2HX-22D MSR inlet steam control solenoid 2. 2MS-2086-S, 2HX-22C MSR inlet steam control solenoid 3. 2POS-2085, 2HX-22D MSR inlet steam control position switch 4. 2POS-2086, 2HX-22C MSR inlet steam control position switch 5. 2MS-2087-S, 2HX-22B MSR inlet steam control solenoid 6. 2MS-2088-S, 2HX-22A MSR inlet steam control solenoid 7. 2POS-2087, MSR inlet steam control solenoid 8. 2POS-2088, 2HX-22A MSR inlet steam control solenoid 9. 2POS-2513B, 2HX-21B HP Feedwater Heater 5B dump to condenser control position switch 10. 2POS-2514B, 2HX-21A HP Feedwater Heater 5A dump to condenser control position switch 11. 2POS-2515A/B, 2HX-22C MSR shell side level control position switch/MSR dump to condenser 12. 2POS-2516A/B, 2HX-22A MSR drain to condenser control position switch/MSR dump to condenser 13. 2POS-2517A/B, 2HX-22D MSR shell side level control position switch/MSR dump to condenser 14. 2POS-2518A/B, 2MS-22B MSR shell side level control position switch/MSR dump to condenser	OPS	1/16/97

2Y-05-06 (CONT.)		15. 2POS-2521B, 2T-25C MSR Stilling manifold dump to condenser control position switch 16. 2POS-2522B, 2T-25B MSR Stilling manifold dump to condenser control position switch 17. 2POS-2532B, 2T-23 heater Drain tank pump to condenser control position switch 18. 2POS-2641B, 2T-25A MSR Stilling manifold dump to condenser control position switch 19. 2POS-2642B, 2T-25D MSR Stilling manifold dump to condenser control position switch 20. 2AR-3511-S, 2Z-53A Priming Air Ejector air side suction control solenoid 21. 2AR-3512-S, 2Z-53B Priming Air Ejector air side suction control solenoid 22. 2MS-2037-S, 2Z-53A/B Priming Air Ejector inlet steam regulator control solenoid 23. 2POS-2037, 2Z-53A/B Priming Air Ejector steam inlet regulator control position switch 24. 2POS-3511, 2Z-53A Priming Air Ejector air side suction control position switch 25. 2POS-3512, 2Z-53B Priming Air Ejector air side suction control position switch 26. 2TG-01, Auto stop and vacuum trip reset 27. 2MS-2701-S, HP turbine drain upper left control solenoid 28. 2MS-2702-S, HP turbine drain lower left control solenoid 29. 2MS-2703-S, HP turbine drain upper right control solenoid 30. 2MS-2704-S HP turbine drain lower right control solenoid 31. 2MS-2705-S HP turbine drain extraction outlet control solenoid 32. 2MS-2706-S HP turbine drain extraction outlet control solenoid 33. 2MS-2729-S, 2HX-22A/C MSR cross under piping drain control solenoid 34. 2MS-2730-S, 2HX-22B/D MSR cross under piping drain control solenoid 35. 2MS-2040-S, 2T-26 Steam Generator blow down tank outlet control solenoid		

2Y-05-06 (CONT.)		36. 2POS-2040, 2T-26 blow down tank outlet control position switch 37. 2FD-2501B-S, 2HX-17B LP Feedwater Heater 2B dump to condenser control solenoid 38. 2FD-2502B-S, 2HX-17B LP Feedwater Heater 1B dump to condenser control solenoid 39. 2FD-2504B-S, 2HX-17A LP Feedwater Heater 2A dump to condenser control solenoid 40. 2FD-2505B-S, 2HX-17A LP Feedwater Heater 1A dump to condenser control solenoid 41. 2FD-2543B-S, 2HX-19B LP Feedwater Heater 3B dump to condenser control solenoid 42. 2FD-2544B-S, 2HX-19A LP Feedwater Heater 3A dump to condenser control solenoid 43. 2POS-2501A/B, 2HX-17B LP Feedwater Heater 2B drain to 1B control position switch/Dump to condenser control position switch 44. 2POS-2502A/B, 2HX-17B LP Feedwater Heater 1B drain to condenser control position switch/Dump to condenser 45. 2POS-2504A/B, 2HX-17A LP Feedwater Heater 2A drain to 1A control position switch/Dump to condenser 46. 2POS-2505A/B, 2HX-17A LP Feedwater Heater 1A drain to condenser control position switch /Dump to condenser 47. 2POS-2544A/B, 2HX-19A LP Feedwater Heater 3A drain to 2HX-17A control position switch/Dump to condenser 48. 2C03 ANN fans and DC power failure relay		

2Y-05-10	18	**RETURN TO SERVICE TESTING** Verify power to the following loads; 1. 2TR-2001, Reactor Coolant pump temp recorder 2. 2TR-2002, Turbine Generator temp recorder 3. 2C04 permissive and bypass lights 4. U2 reactor coolant makeup control 5. 2C04 ANN fans and DC power failure relay 6. 2VNPSE-03269-S, 2W-2A/B U2 Containment purge supply fan Outside Air suction damper solenoid 7. 2FS-03206, 2W-2A/B U2 Containment purge supply fan discharge flow switch 8. 2FS-3214, 2W-43A/B U2 Containment cleanup fan inlet flow switch 9. 2FS-3222A/B, 2W-3A/B control rod drive shroud fan flow switch 10. 2FS-3233, 2R-1, U2 Reactor Vessel cavity cooling air flow switch 11. 2FS-3278, 2W-6A/B Containment purge exhaust fan suction flow switch 12. U2 NIS channel test alarm relay A29 13. 2TR-2000A/B, thermocouple recorder 14. 2NR-45, delta flux differential amplifiers 2-1/2 DA	OPS	1/16/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10

WO 9612082, 9612084, 9612086, 9612087

UNIT 2

December 16, 1996

Comments:

During return to service testing (Load verification), not every load listed could be verified as having power to it because the unit is shutdown. At least one load per breaker was verified as having power to it. This, along with verification of 120 VAC at the load side of the breaker when closed, is sufficient to verify the new breakers are supplying power to their circuits. [illegible] 1/15/96

Point Beach Nuclear Plant

WIRE REMOVAL LOG

Sheet 1 of 1

This log to be used when more than one wire is lifted at a time.

Removal Date 1-15-97 Restoration Date 1-15-97

*NOTE: Use of this form **does not** supersede any of the requirements of PBNP 3.1.1 Independent Verification and Concurrent Checks.*

Fill in the applicable block(s)				Initials			
Location	TB No.	Wire No.	Color	First Person Check	Wire Removed	Wire Restored	Second Person Check
BRK 1	2405	15 X	BLK				
BRK 5		5	BLK				
BRK 6		6	BLK				
BRK 10		10	BLK				

Attach this form to the procedure or MWR.

SMP/RMP/ICP No. _____ MWR No. 9612052 Other _____

Work Order No. 9612082

Return to Service Testing Reviews

INITIALS
Pre-Release / Pre or Post-RTS

Work Group Post-Maintenance Testing

CYCLE BKRS CHECKING CONTINUITY / TESTING TRIP
VERIFY BKR OPERATION VIA VOLTAGE CHECKS

Section XI Equipment: Y (N)

Operability Testing

Verify proper indication on 9th volt 1 circuit
TSV indication

Inservice Testing

None

1-3-97

ENGINEERING REVIEW

SECTION XI ENGINEERING REVIEW

N/A

DANGER TAG REQUEST

Work Control Document # 9612082

Time/Date of application: 12-16-96	Time/Date Tags Required: 1700 / 12-19-96
Requesting Individual:	Requesting Work Group: MAINTENANCE
Responsible Supervisor: MAINTENANCE SUPERVISOR	Estimated Job Completion (Time/Date): 10.0 HRS

Equipment ID: Y-05-01 Unit: 2

Scope of Work: BREAKER REPLACEMENT

Additional Work Control Documents: 9612084 - Y-05-05 9612087 - Y-05-10
9612086 - Y-05-06

Recommended Danger Tagging/Explanation:

No Tags Req'd: X Double Isolation: ☐
Positive Control: ☐ Grounding Req'd: ☐
Partial Removal Req'd: ☐

NOTE: The RMP/TWP/SMP/Work Order/Work Plan may be referenced above for the recommended danger tagging.

References: *(NOTE: Must include Rev. number for controlled documents used to verify adequacy.)*

Information: ACT # ~~8886~~ 8885 3/21/96

Appendix R: ☐ Yes ☐ No If yes, attach Fire Round Sheet

LCO Req'd: ☐ Yes ☐ No If yes, attach LCO Tracking Form PBF-9133

Preparer: _____

Date: _____

Reviewer _____ Date _____ Approver (SRO) _____ Date _____

NOTE: Additional reviews and approvals req'd for changes or additions to original tagout. Describe changes in information section.

Reviewer _____ Date _____ Approver (SRO) _____ Date _____

Reviewer _____ Date _____ Approver (SRO) _____ Date _____

Danger Tags No Longer Required and Protected Worker Log Sign-Offs Complete

Responsible Supervisor N/A Date _____

Tag Series No. _____

PBF-1906a
Revision 1 03/13/96

1

ORIGINAL

WO Priority: 4 * UNIT 2 **WCC TRACKING** *

Resp Group: MTN

Equipment: Y-05-05

Equipment Name: PWR TO 2D-03 TURB BE CONSERVATORY INSTRUMENT

Physical Location: 4160-CR WEST

Problem Description:
REPLACE BREAKER WITH PROPER SIZE BREAKER TO PROVIDE CORRECT CIRCUIT
PROTECTION.

Originator: ETE

Tag/Sticker Placed: T No: 99319 Tag/Sticker Loc'n: 2Y-05

Job Type: CORRECTIVE MAINTENANCE Project ID: Cond Trans Reqmt

Work Function: WORK ORDER

Mod Req #: 96 - 069

QA: N SEIS: 3 Operability Pre-Test: N Procedures:

SR: N LCO: N

EQ: N PMT: Y Operability Post-Test: N Procedures:

SSA: Y CLV: N MRULE: Y

A/P: P CACC

RRN: Tech Spec Ref:

QA Codes: Sect XI Class:

Tools Needed:

Work Plan/Instructions reviewed. Planner: DENSON STAGE TAN

LINE SUPERVISOR: 2057 NAME: SPEE 1597

Plant Conditions: COLD SHUTDOWN Interface Control Required:

Other Conditions: Transient Combustible Permit:

Fire Early Warning Detection Required: N SGMP:

Equipment Isolation Required: N PE:

Isolation Tag Series #:

Operability Pre-Test Complete: Equipment Isolated as requested:

Permission granted to perform Work:

Does DSS Notification Req: Y Does DSS Signature: for 1/15/97

Special Notification:

Number of Steps: 001

Acct #: 00 - 0000N - 9506205 - 00000

MFG Code: WEST Tech Manual Cntl #:

* WORK ORDER CLOSEOUT *

Group Head Signature: Date: 12297

ORIGINAL

Resp Group: STN

Sequence No: 01

Short Desc: REPLACE BREAKER

PLANNED

Crew: ME

Shift: 2

Class: 420

Work Plan Description

SEE ATTACHED WORK PLAN.

ALL QC, FME, AND PMT ADDRESSED IN ATTACHED WORK PLAN.

QC REVIEW REQUIRED: N

WORK PERFORMED: Replaced Breaker Works fine

original WP w/ WO# 9612087, copy attached to this WO.

✓ MCTW027

✓ 11376

ACTUAL USED

CREW

WORKER CLASS: 420

NUMBER OF WORKERS: 3

TOTAL HOURS: 4.0

PARTS USED LIST ATTACHED: Y / (N)

WC TAGS REMOVED: (Y) / N / NA

WORK COMPLETE DATE: 1/15/97

EMPLOYEE NUMBER: 22077

EMPLOYEE NAME: [illegible]

* WORK COMPLETED *

Cause Failure Code: FM / (EXP) / MRM /

As Found-Out of Spec: Y / N / (NA)

Machine History Review Required: Y / N

Failed Component: NA

Corrective Action: (NA) / RP / RE /

LINE SUPERVISOR: 20577 NAME: [illegible]

DATE: 1/15/97

* EQUIPMENT RETURN TO SERVICE *

none req'd

Operability Post Testing

EQUIP. TAKEN OOS - DATE: __/__/__ TIME: RETURN DATE: __/__/__ TIME:

Operability Procs Performed

NON OPS SUPV: NAME: DATE:

OPS: PB0928 NAME: [signature] DATE: 1/20/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 — WO 9612082, 9612084, 9612086, 9612087

UNIT 2 — December 16, 1996

1.0 PURPOSE

This WO work plan provides direction for the removal of breakers 2Y-05-01, 05, 06 & 10. Breakers 2Y-05-01, 05 & 10 will be replaced with Westinghouse EHD 1015 15 amp breakers. Breakers 2Y-05-06 will be replaced with Westinghouse EHD 1020 20 amp breaker.

2.0 INITIAL CONDITIONS

1. Reactor is in a cold shutdown **OR** de-fueled.
2. Verify loads listed in Return to Service steps ~~20~~ 15 through ~~23~~ 18 can be taken OOS. 1/15/97
3. Permission has been granted to remove/replace breakers 2Y-05-01, 05, 06 & 10.

3.0 ATTACHMENTS

3.1 Maintenance Electrical Safety Checklist, PBF-9044 form

3.2 Wire Removal Form, PBF-0036

4.0 REFERENCE DRAWINGS

None

5.0 MATERIALS

1. Westinghouse EHD 1015 breaker (Quantity 3)
2. Westinghouse EHD 1020 breaker (Quantity 1)

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 — WO 9612082, 9612084, 9612086, 9612087

UNIT 2 — December 16, 1996

Hold Point	Step No.	Work Plan Description	Worker	Date
NOTE		*Breakers 2Y-05-01, 05, 06, & 10 provide power to 2C39, 2C03 Turbine Supervisory, MOBs 242, 243, 272-277, 279,[c] & MOBs 288-293, 296, 297, and 332.*		
	1	Verify initial conditions have been met.	OPS	1/15/97
CAUTION		**ALL COMPONENTS AND TERMINALS LOCATED IN THE PANEL ARE ASSUMED TO BE ENERGIZED, TAKE NECESSARY PRECAUTIONS.**		
	2	Responsible Engineer to perform a pre-job briefing to include scope of project, personnel safety, and installation.	RE	1/15/97
FME:		General FME Statement: Tools and equipment shall be checked for loose parts and debris and temporary covers should be installed for foreign material exclusion (FME) of system/components, per Exclusion of Foreign Material from Plant Components and systems, NP 8.4.10.		
	3	Verify that breakers 2Y-05-01, 05, 06, & 10 are in the "OFF" position **OR** coordinate with OPS to place breakers 2Y-05-01, 05, 06, & 10 in "OFF".	MTN	1-15-97
	4	Remove 2Y-05 panel cover. Post panel with appropriate "Danger alive" placards.	MTN	1-15-97
	5	Disconnect wiring from breakers 2Y-05-01, 05, 06, & 10, recording wires removed on PB-0036 Wire Removal Form.	MTN	1-15-97
	6	Remove breakers 2Y-05-01, 05, 06, & 10 from panel.	MTN	1-15-97
	7	Prior to installing the replacement breakers, cycle breakers five times per the following directions; 1. Close breaker 2. Trip breaker using the trip to test button(red) on breaker. 3. Open breaker. 4. Use continuity checks to verify proper positioning of breaker contact on final cycle (closed, trip free, and open. Acceptance Criteria: Closed $\leq$ 1 ohm / Open > 1 Mohm	MTN	1-15-97
	8	Install new Westinghouse EHD 1015 breakers in 2Y-05-01, 05, & 10. Install new Westinghouse EHD 1020 breaker in 2Y-05-06.	MTN	1-13-97
	9	Re-connect leads using attached PBF-0036 Wire Removal Form.	MTN	1-15-97

	10	Torque the load side leads per the following step. For breakers with capture wire connections, determine the wire size of the leads connected to the breaker and torque per the following table: **Wire Size** **#14 to #10** **#8** **#6 to #4** **#2 to #1/0** Torque Value (in/lbs) 20 40 45 50 Record torque wrench MTE number and calibration date on the WO and work plan. MTE MCTW-027 Calibration Due Date 04/97	MTN	1-15-9
NOTE		*Use calibrated digital voltmeter for the following step.*		
PMT:	11	**POST MAINTENANCE TEST** A. Verify that each breaker reads 0 VAC on the load side of the breaker with the breaker open. B. Verify that each breaker reads a nominal 120 VAC on the load side of the breaker with the breaker closed. C. Position the breakers to the off position.	MTN see note page 8 of 8.	✓ 5-9,
FME:	12	Perform a Foreign Materials Exclusion inspection of panel to verify all tools and foreign materials are removed	MTN	1-15-9
	13	Reinstall panel cover.	MTN	1-15-9
	14	Record all QAR, MTE and Lot numbers on WO	MTN	1-15-9

2Y-05-01	15	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2C39 Turbine Electro Hydraulic control panel 2. 2MS-2026/2027 Turbine Stop valves open/close indicating lights 3. 2C03 ANN 2F 4-3, Turbine supervisory alarm	OPS	1/16/97
2Y-05-05	16	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2C03 Turbine Supervisory Instruments See note in comments on pg 8 of 8	OPS	1/16/97
2Y-05-06	17	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2MS-2085-S, 2HX-22D MSR inlet steam control solenoid 2. 2MS-2086-S, 2HX-22C MSR inlet steam control solenoid 3. 2POS-2085, 2HX-22D MSR inlet steam control position switch 4. 2POS-2086, 2HX-22C MSR inlet steam control position switch 5. 2MS-2087-S, 2HX-22B MSR inlet steam control solenoid 6. 2MS-2088-S, 2HX-22A MSR inlet steam control solenoid 7. 2POS-2087, MSR inlet steam control solenoid 8. 2POS-2088, 2HX-22A MSR inlet steam control solenoid 9. 2POS-2513B, 2HX-21B HP Feedwater Heater 5B dump to condenser control position switch 10. 2POS-2514B, 2HX-21A HP Feedwater Heater 5A dump to condenser control position switch 11. 2POS-2515A/B, 2HX-22C MSR shell side level control position switch/MSR dump to condenser 12. 2POS-2516A/B, 2HX-22A MSR drain to condenser control position switch/MSR dump to condenser 13. 2POS-2517A/B, 2HX-22D MSR shell side level control position switch/MSR dump to condenser 14. 2POS-2518A/B, 2MS-22B MSR shell side level control position switch/MSR dump to condenser	OPS	1/16/97

2Y-05-06 (CONT.)		15. 2POS-2521B, 2T-25C MSR Stilling manifold dump to condenser control position switch 16. 2POS-2522B, 2T-25B MSR Stilling manifold dump to condenser control position switch 17. 2POS-2532B, 2T-23 heater Drain tank pump to condenser control position switch 18. 2POS-2641B, 2T-25A MSR Stilling manifold dump to condenser control position switch 19. 2POS-2642B, 2T-25D MSR Stilling manifold dump to condenser control position switch 20. 2AR-3511-S, 2Z-53A Priming Air Ejector air side suction control solenoid 21. 2AR-3512-S, 2Z-53B Priming Air Ejector air side suction control solenoid 22. 2MS-2037-S, 2Z-53A/B Priming Air Ejector inlet steam regulator control solenoid 23. 2POS-2037, 2Z-53A/B Priming Air Ejector steam inlet regulator control position switch 24. 2POS-3511, 2Z-53A Priming Air Ejector air side suction control position switch 25. 2POS-3512, 2Z-53B Priming Air Ejector air side suction control position switch 26. 2TG-01, Auto stop and vacuum trip reset 27. 2MS-2701-S, HP turbine drain upper left control solenoid 28. 2MS-2702-S, HP turbine drain lower left control solenoid 29. 2MS-2703-S, HP turbine drain upper right control solenoid 30. 2MS-2704-S HP turbine drain lower right control solenoid 31. 2MS-2705-S HP turbine drain extraction outlet control solenoid 32. 2MS-2706-S HP turbine drain extraction outlet control solenoid 33. 2MS-2729-S, 2HX-22A/C MSR cross under piping drain control solenoid 34. 2MS-2730-S, 2HX-22B/D MSR cross under piping drain control solenoid 35. 2MS-2040-S, 2T-26 Steam Generator blow down tank outlet control solenoid		

2Y-05-06 (CONT.)		36. 2POS-2040, 2T-26 blow down tank outlet control position switch 37. 2FD-2501B-S, 2HX-17B LP Feedwater Heater 2B dump to condenser control solenoid 38. 2FD-2502B-S, 2HX-17B LP Feedwater Heater 1B dump to condenser control solenoid 39. 2FD-2504B-S, 2HX-17A LP Feedwater Heater 2A dump to condenser control solenoid 40. 2FD-2505B-S, 2HX-17A LP Feedwater Heater 1A dump to condenser control solenoid 41. 2FD-2543B-S, 2HX-19B LP Feedwater Heater 3B dump to condenser control solenoid 42. 2FD-2544B-S, 2HX-19A LP Feedwater Heater 3A dump to condenser control solenoid 43. 2POS-2501A/B, 2HX-17B LP Feedwater Heater 2B drain to 1B control position switch/Dump to condenser control position switch 44. 2POS-2502A/B, 2HX-17B LP Feedwater Heater 1B drain to condenser control position switch/Dump to condenser 45. 2POS-2504A/B, 2HX-17A LP Feedwater Heater 2A drain to 1A control position switch/Dump to condenser 46. 2POS-2505A/B, 2HX-17A LP Feedwater Heater 1A drain to condenser control position switch /Dump to condenser 47. 2POS-2544A/B, 2HX-19A LP Feedwater Heater 3A drain to 2HX-17A control position switch/Dump to condenser 48. 2C03 ANN fans and DC power failure relay		

2Y-05-10	18	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2TR-2001, Reactor Coolant pump temp recorder 2. 2TR-2002, Turbine Generator temp recorder 3. 2C04 permissive and bypass lights 4. U2 reactor coolant makeup control 5. 2C04 ANN fans and DC power failure relay 6. 2VNPSE-03269-S, 2W-2A/B U2 Containment purge supply fan Outside Air suction damper solenoid 7. 2FS-03206, 2W-2A/B U2 Containment purge supply fan discharge flow switch 8. 2FS-3214, 2W-43A/B U2 Containment cleanup fan inlet flow switch 9. 2FS-3222A/B, 2W-3A/B control rod drive shroud fan flow switch 10. 2FS-3233, 2R-1, U2 Reactor Vessel cavity cooling air flow switch 11. 2FS-3278, 2W-6A/B Containment purge exhaust fan suction flow switch 12. U2 NIS channel test alarm relay A29 13. 2TR-2000A/B, thermocouple recorder 14. 2NR-45, delta flux differential amplifiers 2-1/2 DA	OPS	1/16/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10

WO 9612082, 9612084, 9612086, 9612087

UNIT 2

December 16, 1996

Comments:

During return to service testing (Load verification), not every load listed could be verified as having power to it because the unit is shutdown. At least one load per breaker was verified as having power to it. This along with verification of 120 VAC at the load side of the breaker when closed, is sufficient to verify the new breakers are supplying power to their circuits. 1/15/96

Point Beach Nuclear Plant

WIRE REMOVAL LOG

Sheet 1 of 1

This log to be used when more than one wire is lifted at a time.

Removal Date 1-15-97 Restoration Date 1-15-97

*NOTE: Use of this form **does not** supersede any of the requirements of PBNP 3.1.1 Independent Verification and Concurrent Checks.*

Fill in the applicable block(s)				Initials			
Location	TB No.	Wire No.	Color	First Person Check	Wire Removed	Wire Restored	Second Person Check
BRR1	2405	15 X	BLK				
BRK5		5	BLK				
BRKR6		6	BLK				
BRK 10		10	BLK				

Attach this form to the procedure or MWR.

SMP/RMP/ICP No. _____ MWR No. 9612052 Other _____

PBF-0036
Revision 2 04/29/94

Work Order No. 9612084

Return to Service Testing Reviews

INITIALS
Pre-Release / Pre or Post-RTS

Work Group Post-Maintenance Testing

CYCLE BKRS CHECKING CONTINUITY / TESTING TRIP
VERIFY BKR OPERATION VIA VOLTAGE CHECKS

Section XI Equipment Y (N)

Operability Testing

Verify turbine supv indication

Inservice Testing

DONE

1-3-97

ENGINEERING REVIEW

SECTION XI ENGINEERING REVIEW

N/A →

1

ORIGINAL

UNIT 2 **WCC TRACKING**

WO Priority: 4
Resp Group: MTN
Equipment: Y-05-06
Equipment Name: SWP TO 2MOB-242/24
Physical Location: 4A, PACER WEST

Problem Description
REPLACE BREAKER WITH PROPER SIZE BREAKER TO PROVIDE CORRECT CIRCUIT PROTECTION.

Originator: GDE Outage ID: U2R22 Activity: RMO
Tag/Sticker Placed: T No: 99320 Tag/Sticker Item: 2Y-05
Job Type: CORRECTIVE MAINTENANCE Project ID: Condition Rep:
Work Function: WORK ORDER
Mod Req #: 96 - 069

QA: N SEIS: N Operability Pre-Test: N Procedures:
SR: N LCO: N
EQ: N PMT: Y Operability Post-Test: N Procedures:
SSA: Y CIV: N MRLE: N
A/P: P CACC:
ERN: - - - Tech Spec Ref:
Qa Codes: Fact XI Cross:
Tools Needed:

Work Plan/Instruction Prepared: Planner: STEVE TRN:
CMC SUPERVISOR: 2057 DATE: 1 15 97

Plant Conditions: COLD SHUTDOWN Time Condition Commenced:
Other Conditions: Equipment Combustible Free:
Fire Barrier Penetration: FWD
Equipment Isolation Required: PRT
Isolation Tag Series #:

Operability Pre-Test Complete: Equipment Ready on as requested
Permission granted to perform work: Date:
Qual DIS Notification Req'd: Qual DIS Fulfilled: Date:

Special Notification:

Number of Steps: 001
Acct #: 00 - 0006N - 9500265 - 0000
MFG Code: WEST Tech Manual Cmpl: Y

* WORK ORDER CLOSEOUT *

Group Lead Signature: Date: 2497

ORIGINAL
WO Priority: 4
Resp Group: STN
Equipment: Y-05-00
Equipment Name: PWR TO IMCB-243/[illegible]
Physical Location: 44-ON/ER WEST
Sequence No: 0
Short Desc: REPLACE BREAKER

PLANNED
Crew: ME
Shift: 2
Class: 420

Work Plan Description
SEE ATTACHED WORK PLAN
ALL QC, FME, AND PMT ADDRESSED IN ATTACHED WORK PLAN

QC REVIEW REQUIRED: N

WORK PERFORMED: Replaced Breaker - works fine
original WP w/ WO#9612087, copy attached to this WO.

✓ MCTW027 ✓ 11376

ACTUAL USED: TREL
SHIFT
WORKER CLASS: Y20
NUMBER OF WORKERS: 2
TOTAL MAN-HOURS: 4.5
TTL EXPOSURE/STEP (MREM):

PARTS USED LIST ATTACHED: Y / (N)
WO TAGS REMOVED: (N) / NA
WORK COMPLETE DATE: 1/15/97
EMPLOYEE NUMBER: 22207
EMPLOYEE NAME:

* WORK COMPLETED *

Cause Failure Code: PM / (CM) / NRM /
As Found-Out of Spec: Y / N / (NA)
Machine History Review Required: Y / N
Failed Component:
Corrective Action: (NA) RP/RE/
Downgrade:
LINE SUPERVISOR: 2057
NAME:
DATE: 1/15/97

* EQUIPMENT RETURN TO SERVICE *

none req'd

Operability Post Testing:
EQUIP. TAKEN OOS - DATE: / / TIME: RETURN DATE: / / TIME:
Operability Procs Performed:
NON OPS SUPV: NAME: DATE:
OSS: NAME: DATE: 1/20/97

PB0928

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 — WO 9612082, 9612084, 9612086, 9612087

UNIT 2 — December 16, 1996

1.0 PURPOSE

This WO work plan provides direction for the removal of breakers 2Y-05-01, 05, 06 & 10. Breakers 2Y-05-01, 05 & 10 will be replaced with Westinghouse EHD 1015 15 amp breakers. Breakers 2Y-05-06 will be replaced with Westinghouse EHD 1020 20 amp breaker.

2.0 INITIAL CONDITIONS

1. Reactor is in a cold shutdown **OR** de-fueled.
2. Verify loads listed in Return to Service steps ~~20~~ 15 through ~~23~~ 18 can be taken OOS. 1/15/97
3. Permission has been granted to remove/replace breakers 2Y-05-01, 05, 06 & 10.

3.0 ATTACHMENTS

3.1 Maintenance Electrical Safety Checklist, PBF-9044 form

3.2 Wire Removal Form, PBF-0036

4.0 REFERENCE DRAWINGS

None

5.0 MATERIALS

1. Westinghouse EHD 1015 breaker (Quantity 3)
2. Westinghouse EHD 1020 breaker (Quantity 1)

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 — WO 9612082, 9612084, 9612086, 9612087

UNIT 2 — December 16, 1996

Hold Point	Step No.	Work Plan Description	Worker	Date
NOTE		*Breakers 2Y-05-01, 05, 06, & 10 provide power to 2C39, 2C03 Turbine Supervisory, MOBs 242, 243, 272-277, 279, & MOBs 288-293, 296, 297, and 332.*		
	1	Verify initial conditions have been met.	OPS	1/15/97
CAUTION		**ALL COMPONENTS AND TERMINALS LOCATED IN THE PANEL ARE ASSUMED TO BE ENERGIZED, TAKE NECESSARY PRECAUTIONS.**		
	2	Responsible Engineer to perform a pre-job briefing to include scope of project, personnel safety, and installation.	RE	1/15/97
FME:		General FME Statement: Tools and equipment shall be checked for loose parts and debris and temporary covers should be installed for foreign material exclusion (FME) of system/components, per Exclusion of Foreign Material from Plant Components and systems, NP 8.4.10.		
	3	Verify that breakers 2Y-05-01, 05, 06, & 10 are in the "OFF" position **OR** coordinate with OPS to place breakers 2Y-05-01, 05, 06, & 10 in "OFF".	MTN	1-15-97
	4	Remove 2Y-05 panel cover. Post panel with appropriate "Danger alive" placards.	MTN	1-15-97
	5	Disconnect wiring from breakers 2Y-05-01, 05, 06, & 10, recording wires removed on PB-0036 Wire Removal Form.	MTN	1-15-97
	6	Remove breakers 2Y-05-01, 05, 06, & 10 from panel.	MTN	1-15-97
	7	Prior to installing the replacement breakers, cycle breakers five times per the following directions; 1. Close breaker 2. Trip breaker using the trip to test button(red) on breaker. 3. Open breaker. 4. Use continuity checks to verify proper positioning of breaker contact on final cycle (closed, trip free, and open. Acceptance Criteria: Closed $\leq$ 1 onm / Open > 1 Mohm	MTN	1-15-97
	8	Install new Westinghouse EHD 1015 breakers in 2Y-05-01, 05, & 10. Install new Westinghouse EHD 1020 breaker in 2Y-05-06.	MTN	1-15-97
	9	Re-connect leads using attached PBF-0036 Wire Removal Form.	MTN	1-15-97

	10	Torque the load side leads per the following step. For breakers with capture wire connections, determine the wire size of the leads connected to the breaker and torque per the following table: **Wire Size** — **#14 to #10** — **#8** — **#6 to #4** — **#2 to #1/0** Torque Value (in/lbs) — 20 — 40 — 45 — 50 Record torque wrench MTE number and calibration date on the WO and work plan. MTE MCTW-027 Calibration Due Date 04/97	MTN	1-15-97
NOTE		*Use calibrated digital voltmeter for the following step.*		
PMT:	11	**POST MAINTENANCE TEST** A. Verify that each breaker reads 0 VAC on the load side of the breaker with the breaker open. B. Verify that each breaker reads a nominal 120 VAC on the load side of the breaker with the breaker closed. C. Position the breakers to the off position.	MTN see note pg 8 of 8.	1-15-97
FME:	12	Perform a Foreign Materials Exclusion inspection of panel to verify all tools and foreign materials are removed	MTN	1-15-97
	13	Reinstall panel cover.	MTN	1-15-97
	14	Record all QAR, MTE and Lot numbers on WO	MTN	1-15-97

2Y-05-01	15	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2C39 Turbine Electro Hydraulic control panel 2. 2MS-2026/2027 Turbine Stop valves open/close indicating lights 3. 2C03 ANN 2F 4-3, Turbine supervisory alarm	OPS	1/29/97
2Y-05-05	16	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2C03 Turbine Supervisory Instruments	OPS	1/16/97
2Y-05-06	17	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2MS-2085-S, 2HX-22D MSR inlet steam control solenoid 2. 2MS-2086-S, 2HX-22C MSR inlet steam control solenoid 3. 2POS-2085, 2HX-22D MSR inlet steam control position switch 4. 2POS-2086, 2HX-22C MSR inlet steam control position switch 5. 2MS-2087-S, 2HX-22B MSR inlet steam control solenoid 6. 2MS-2088-S, 2HX-22A MSR inlet steam control solenoid 7. 2POS-2087, MSR inlet steam control solenoid 8. 2POS-2088, 2HX-22A MSR inlet steam control solenoid 9. 2POS-2513B, 2HX-21B HP Feedwater Heater 5B dump to condenser control position switch 10. 2POS-2514B, 2HX-21A HP Feedwater Heater 5A dump to condenser control position switch 11. 2POS-2515A/B, 2HX-22C MSR shell side level control position switch/MSR dump to condenser 12. 2POS-2516A/B, 2HX-22A MSR drain to condenser control position switch/MSR dump to condenser 13. 2POS-2517A/B, 2HX-22D MSR shell side level control position switch/MSR dump to condenser 14. 2POS-2518A/B, 2MS-22B MSR shell side level control position switch/MSR dump to condenser	OPS See note in Comments Pg 8 of 8.	1/16/97

2Y-05-06 (CONT.)		15. 2POS-2521B, 2T-25C MSR Stilling manifold dump to condenser control position switch 16. 2POS-2522B, 2T-25B MSR Stilling manifold dump to condenser control position switch 17. 2POS-2532B, 2T-23 heater Drain tank pump to condenser control position switch 18. 2POS-2641B, 2T-25A MSR Stilling manifold dump to condenser control position switch 19. 2POS-2642B, 2T-25D MSR Stilling manifold dump to condenser control position switch 20. 2AR-3511-S, 2Z-53A Priming Air Ejector air side suction control solenoid 21. 2AR-3512-S, 2Z-53B Priming Air Ejector air side suction control solenoid 22. 2MS-2037-S, 2Z-53A/B Priming Air Ejector inlet steam regulator control solenoid 23. 2POS-2037, 2Z-53A/B Priming Air Ejector steam inlet regulator control position switch 24. 2POS-3511, 2Z-53A Priming Air Ejector air side suction control position switch 25. 2POS-3512, 2Z-53B Priming Air Ejector air side suction control position switch 26. 2TG-01, Auto stop and vacuum trip reset 27. 2MS-2701-S, HP turbine drain upper left control solenoid 28. 2MS-2702-S, HP turbine drain lower left control solenoid 29. 2MS-2703-S, HP turbine drain upper right control solenoid 30. 2MS-2704-S HP turbine drain lower right control solenoid 31. 2MS-2705-S HP turbine drain extraction outlet control solenoid 32. 2MS-2706-S HP turbine drain extraction outlet control solenoid 33. 2MS-2729-S, 2HX-22A/C MSR cross under piping drain control solenoid 34. 2MS-2730-S, 2HX-22B/D MSR cross under piping drain control solenoid 35. 2MS-2040-S, 2T-26 Steam Generator blow down tank outlet control solenoid		

2Y-05-06 (CONT.)		36. 2POS-2040, 2T-26 blow down tank outlet control position switch 37. 2FD-2501B-S, 2HX-17B LP Feedwater Heater 2B dump to condenser control solenoid 38. 2FD-2502B-S, 2HX-17B LP Feedwater Heater 1B dump to condenser control solenoid 39. 2FD-2504B-S, 2HX-17A LP Feedwater Heater 2A dump to condenser control solenoid 40. 2FD-2505B-S, 2HX-17A LP Feedwater Heater 1A dump to condenser control solenoid 41. 2FD-2543B-S, 2HX-19B LP Feedwater Heater 3B dump to condenser control solenoid 42. 2FD-2544B-S, 2HX-19A LP Feedwater Heater 3A dump to condenser control solenoid 43. 2POS-2501A/B, 2HX-17B LP Feedwater Heater 2B drain to 1B control position switch/Dump to condenser control position switch 44. 2POS-2502A/B, 2HX-17B LP Feedwater Heater 1B drain to condenser control position switch/Dump to condenser 45. 2POS-2504A/B, 2HX-17A LP Feedwater Heater 2A drain to 1A control position switch/Dump to condenser 46. 2POS-2505A/B, 2HX-17A LP Feedwater Heater 1A drain to condenser control position switch /Dump to condenser 47. 2POS-2544A/B, 2HX-19A LP Feedwater Heater 3A drain to 2HX-17A control position switch/Dump to condenser 48. 2C03 ANN fans and DC power failure relay		

2Y-05-10	18	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2TR-2001. Reactor Coolant pump temp recorder 2. 2TR-2002, Turbine Generator temp recorder 3. 2C04 permissive and bypass lights 4. U2 reactor coolant makeup control 5. 2C04 ANN fans and DC power failure relay 6. 2VNPSE-03269-S, 2W-2A/B U2 Containment purge supply fan Outside Air suction damper solenoid 7. 2FS-03206, 2W-2A/B U2 Containment purge supply fan discharge flow switch 8. 2FS-3214, 2W-43A/B U2 Containment cleanup fan inlet flow switch 9. 2FS-3222A/B, 2W-3A/B control rod drive shroud fan flow switch 10. 2FS-3233, 2R-1, U2 Reactor Vessel cavity cooling air flow switch 11. 2FS-3278, 2W-6A/B Containment purge exhaust fan suction flow switch 12. U2 NIS channel test alarm relay A29 13. 2TR-2000A/B, thermocouple recorder 14. 2NR-45, delta flux differential amplifiers 2-1/2 DA	OPS	1/16/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10

WO 9612082, 9612084, 9612086, 9612087

UNIT 2

December 16, 1996

Comments:

During return to service testing (Load verification), not every load listed could be verified as having power to it because the unit is shutdown. At least one load per breaker was verified as having power to it. This, along with verification of 120 VAC at the load side of the breaker when closed, is sufficient to verify the new breakers are supplying power to their circuits. [illegible] 1/15/96

Point Beach Nuclear Plant

WIRE REMOVAL LOG

Sheet 1 of 1

This log to be used when more than one wire is lifted at a time.

Removal Date 1-15-97 Restoration Date 1-15-97

*NOTE: Use of this form **does not** supersede any of the requirements of PBNP 3.1.1 Independent Verification and Concurrent Checks.*

Fill in the applicable block(s)				Initials			
Location	TB No.	Wire No.	Color	First Person Check	Wire Removed	Wire Restored	Second Person Check
BRK 1	2405	15 X	BLK	—			
BRK 5		5	BLK				
BRK 6		6	BLK				
BRK 10		10	BLK	—			

Attach this form to the procedure or MWR.

SMP/RMP/ICP No. _____ MWR No. 9612052 Other _____

Work Order No. 9612086

Return to Service Testing Reviews

INITIALS
Pre-Release / Pre or Post-RTS

Work Group Post-Maintenance Testing

CYCLE BKRS CHECKING CONTINUITY / TESTING TRIP
VERIFY BKR OPERATION VIA VOLTAGE CHECKS

Section XI Equipment: Y (N)

Operability Testing

Verify ~~I~~ Two Lights / Light illuminated for MSR Supplies

Inservice Testing

1-3-97

ENGINEERING REVIEW

SECTION XI ENGINEERING REVIEW

N/A →

ORIGINAL

* UNIT 2 *

~~WCC TRACKING~~

WO Pt

Resp Group MTN

Equipment Y-05-10

Equipment Name PUR TO 2400-282-293/294/297/332

Physical Location AA/CB/DP WEST

Problem Description:
REPLACE BREAKER WITH PROPER SIZE BREAKER TO PROVIDE PROPER CIRCUIT PROTECTION.

Originator EPE Outage ID: U2R22 Activity: 9860

Tag/Sticker Placed: T No: 99321 Tag/Sticker Loc'n: 2Y-05

Job Type: CORRECTIVE MAINTENANCE Project ID: Condition Report

Work Function: WORK ORDER

Mod Req #: 96 - 060

QA: N SEIS: 3 Operability Pre-Test: N Procedures:
SR: N LCO: N
EQ: N PMT: Y Operability Post-Test: N Procedures:
SSA: Y CIV: N MRULE: N
A/P: P CPCC
RAN Work Group Ref:
QA Codes: Seismic Class:
Tools Needed:

Work Plan/Instruction Procedure: 2057 1/5/97

Plant Condition: Other Conditions: Transient Combustible Permit:
Fire Barrier Penetration Impaired: N
Equipment Isolation Required: N
Isolation Tag Series #:

Operability Pre-Test Complete: Equipment Operation as required
Permission granted to perform work
Ops DSS Notification Req'd: Ops DSS Signature: Date: 1/5/97

Special Notification:

Number of Steps: 001
Acct #: 00 - 0000N - 9500265 - 00000
MFG Code: WEST Tech Manual Cntl #:

* WORK ORDER CLOSEOUT *

Group Head Signature: Date: 1/22/97

WO Priority: 4 * UNIT 2 *
Resp Group: MTN
Equipment: Y-05-10
Equipment Name: FWR TO SHDN-SDN-TCV/SWN
Physical Location: AB/CB.CP WEST
Sequence No: 03
Short Desc: REPLACE BREAKER

PLANNED:
Crew: ME
Shift: 2
Class: 420

Work Plan Description:
SEE ATTACHED WORK PLAN.
ALL QC, EME, AND EMT ADDRESSED IN ATTACHED WORK PLAN.

QC REVIEW REQUIRED: N

WORK PERFORMED: Replaced Breaker - works fine

√ MCTW 027

√ 11576

ACTUAL USED:
SHIFT:
WORKER CLASS: Y20
NUMBER OF WORKERS: 2
TOTAL HOURS: 1.5
TTL EXPOSURE/STEP (MREM):

PARTS USED LIST ATTACHED: Y / (N)
WO TAGS REMOVED: (Y) / N / NA
WORK COMPLETE DATE: 1/15/97
EMPLOYEE NUMBER: 22207
EMPLOYEE NAME:

* WORK COMPLETED *

Cause Failure Code: PM / (NRM) / NRM /
As Found-Out of Spec: Y / N / (NA) Machine History Review Required: Y / N
Failed Component: NA
Corrective Action: (RP)/RP/RE/
LINE SUPERVISOR: 2057 NAME: DATE: 1/15/97

* EQUIPMENT RETURN TO SERVICE *

Operability Post Test: none req'd
EQUIP. TAKEN OOS - DATE: TIME: RETURN DATE: TIME:
Operability Proc Performed:
NON OPS SUPV: NAME: DATE:
DSS: PB0928 NAME: DATE: 1/21/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 — WO 9612082, 9612084, 9612086, 9612087

UNIT 2 — December 16, 1996

1.0 PURPOSE

This WO work plan provides direction for the removal of breakers 2Y-05-01, 05, 06 & 10. Breakers 2Y-05-01, 05 & 10 will be replaced with Westinghouse EHD 1015 15 amp breakers. Breakers 2Y-05-06 will be replaced with Westinghouse EHD 1020 20 amp breaker.

INITIAL CONDITIONS

1. Reactor is in a cold shutdown **OR** de-fueled.
2. Verify loads listed in Return to Service steps ~~20~~ 15 through ~~23~~ 18 can be taken OOS. 1/15/97
3. Permission has been granted to remove/replace breakers 2Y-05-01, 05, 06 & 10.

3.0 ATTACHMENTS

3.1 Maintenance Electrical Safety Checklist, PBF-9044 form

3.2 Wire Removal Form, PBF-0036

4.0 REFERENCE DRAWINGS

None

5.0 MATERIALS

1. Westinghouse EHD 1015 breaker (Quantity 3)
2. Westinghouse EHD 1020 breaker (Quantity 1)

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 — WO 9612082, 9612084, 9612086, 9612087

UNIT 2 — December 16, 1996

Hold Point	Step No.	Work Plan Description	Worker	Date
NOTE		*Breakers 2Y-05-01, 05, 06, & 10 provide power to 2C39, 2C03 Turbine Supervisory, MOBs 242, 243, 272-277, 279,* & MOBs 288-293, 296, 297, and 332.*		
	1	Verify initial conditions have been met.	OPS	1-15-97
CAUTION		**ALL COMPONENTS AND TERMINALS LOCATED IN THE PANEL ARE ASSUMED TO BE ENERGIZED, TAKE NECESSARY PRECAUTIONS.**		
	2	Responsible Engineer to perform a pre-job briefing to include scope of project, personnel safety, and installation.	RE	1-15-97
FME:		General FME Statement: Tools and equipment shall be checked for loose parts and debris and temporary covers should be installed for foreign material exclusion (FME) of system/components, per Exclusion of Foreign Material from Plant Components and systems, NP 8.4.10.		
	3	Verify that breakers 2Y-05-01, 05, 06, & 10 are in the "OFF" position **OR** coordinate with OPS to place breakers 2Y-05-01, 05, 06, & 10 in "OFF".	MTN	1-15-97
	4	Remove 2Y-05 panel cover. Post panel with appropriate "Danger alive" placards.	MTN	1-15-97
	5	Disconnect wiring from breakers 2Y-05-01, 05, 06, & 10, recording wires removed on PB-0036 Wire Removal Form.	MTN	1-15-97
	6	Remove breakers 2Y-05-01, 05, 06, & 10 from panel.	MTN	1-15-97
	7	Prior to installing the replacement breakers, cycle breakers five times per the following directions: 1. Close breaker 2. Trip breaker using the trip to test button(red) on breaker. 3. Open breaker. 4. Use continuity checks to verify proper positioning of breaker contact on final cycle (closed, trip free, and open. Acceptance Criteria: Closed $\leq$ 1 ohm / Open > 1 Mohm	MTN	1-15-97
	8	Install new Westinghouse EHD 1015 breakers in 2Y-05-01, 05, & 10. Install new Westinghouse EHD 1020 breaker in 2Y-05-06.	MTN	1-13-97
	9	Re-connect leads using attached PBF-0036 Wire Removal Form.	MTN	1-15-97

	10	Torque the load side leads per the following step. For breakers with capture wire connections, determine the wire size of the leads connected to the breaker and torque per the following table: **Wire Size** — **#14 to #10** — **#8** — **#6 to #4** — **#2 to #1/0** Torque Value (in/lbs) — 20 — 40 — 45 — 50 Record torque wrench MTE number and calibration date on the WO and work plan. MTE MCTW-027 Calibration Due Date 04/97	MTN	1-15-97
NOTE		***Use calibrated digital voltmeter for the following step.***		
PMT:	11	**POST MAINTENANCE TEST** A. Verify that each breaker reads 0 VAC on the load side of the breaker with the breaker open. B. Verify that each breaker reads a nominal 120 VAC on the load side of the breaker with the breaker closed. C. Position the breakers to the off position.	MTN	1-15-97
FME:	12	Perform a Foreign Materials Exclusion inspection of panel to verify all tools and foreign materials are removed	MTN	1-15-97
	13	Reinstall panel cover.	~~MTN~~	1-15-97
	14	Record all QAR, MTE and Lot numbers on WO	MTN	1-15-97

2Y-05-01	15	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2C39 Turbine Electro Hydraulic control panel 2. 2MS-2026/2027 Turbine Stop valves open/close indicating lights 3. 2C03 ANN 2F 4-3, Turbine supervisory alarm	OPS	1/29/97
2Y-05-05	16	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2C03 Turbine Supervisory Instruments	OPS	1/16/97
2Y-05-06	17	RETURN TO SERVICE TESTING Verify power to the following loads; 1. 2MS-2085-S, 2HX-22D MSR inlet steam control solenoid 2. 2MS-2086-S, 2HX-22C MSR inlet steam control solenoid 3. 2POS-2085, 2HX-22D MSR inlet steam control position switch 4. 2POS-2086, 2HX-22C MSR inlet steam control position switch 5. 2MS-2087-S, 2HX-22B MSR inlet steam control solenoid 6. 2MS-2088-S, 2HX-22A MSR inlet steam control solenoid 7. 2POS-2087, MSR inlet steam control solenoid 8. 2POS-2088, 2HX-22A MSR inlet steam control solenoid 9. 2POS-2513B, 2HX-21B HP Feedwater Heater 5B dump to condenser control position switch 10. 2POS-2514B, 2HX-21A HP Feedwater Heater 5A dump to condenser control position switch 11. 2POS-2515A/B, 2HX-22C MSR shell side level control position switch/MSR dump to condenser 12. 2POS-2516A/B, 2HX-22A MSR drain to condenser control position switch/MSR dump to condenser 13. 2POS-2517A/B, 2HX-22D MSR shell side level control position switch/MSR dump to condenser 14. 2POS-2518A/B, 2MS-22B MSR shell side level control position switch/MSR dump to condenser	OPS	1/16/97

2Y-05-06 (CONT.)		15. 2POS-2521B, 2T-25C MSR Stilling manifold dump to condenser control position switch 16. 2POS-2522B, 2T-25B MSR Stilling manifold dump to condenser control position switch 17. 2POS-2532B, 2T-23 heater Drain tank pump to condenser control position switch 18. 2POS-2641B, 2T-25A MSR Stilling manifold dump to condenser control position switch 19. 2POS-2642B, 2T-25D MSR Stilling manifold dump to condenser control position switch 20. 2AR-3511-S, 2Z-53A Priming Air Ejector air side suction control solenoid 21. 2AR-3512-S, 2Z-53B Priming Air Ejector air side suction control solenoid 22. 2MS-2037-S, 2Z-53A/B Priming Air Ejector inlet steam regulator control solenoid 23. 2POS-2037, 2Z-53A/B Priming Air Ejector steam inlet regulator control position switch 24. 2POS-3511, 2Z-53A Priming Air Ejector air side suction control position switch 25. 2POS-3512, 2Z-53B Priming Air Ejector air side suction control position switch 26. 2TG-01, Auto stop and vacuum trip reset 27. 2MS-2701-S, HP turbine drain upper left control solenoid 28. 2MS-2702-S, HP turbine drain lower left control solenoid 29. 2MS-2703-S, HP turbine drain upper right control solenoid 30. 2MS-2704-S HP turbine drain lower right control solenoid 31. 2MS-2705-S HP turbine drain extraction outlet control solenoid 32. 2MS-2706-S HP turbine drain extraction outlet control solenoid 33. 2MS-2729-S, 2HX-22A/C MSR cross under piping drain control solenoid 34. 2MS-2730-S, 2HX-22B/D MSR cross under piping drain control solenoid 35. 2MS-2040-S, 2T-26 Steam Generator blow down tank outlet control solenoid		

2Y-05-06 (CONT.)		36. 2POS-2040, 2T-26 blow down tank outlet control position switch 37. 2FD-2501B-S, 2HX-17B LP Feedwater Heater 2B dump to condenser control solenoid 38. 2FD-2502B-S, 2HX-17B LP Feedwater Heater 1B dump to condenser control solenoid 39. 2FD-2504B-S, 2HX-17A LP Feedwater Heater 2A dump to condenser control solenoid 40. 2FD-2505B-S, 2HX-17A LP Feedwater Heater 1A dump to condenser control solenoid 41. 2FD-2543B-S, 2HX-19B LP Feedwater Heater 3B dump to condenser control solenoid 42. 2FD-2544B-S, 2HX-19A LP Feedwater Heater 3A dump to condenser control solenoid 43. 2POS-2501A/B, 2HX-17B LP Feedwater Heater 2B drain to 1B control position switch/Dump to condenser control position switch 44. 2POS-2502A/B, 2HX-17B LP Feedwater Heater 1B drain to condenser control position switch/Dump to condenser 45. 2POS-2504A/B, 2HX-17A LP Feedwater Heater 2A drain to 1A control position switch/Dump to condenser 46. 2POS-2505A/B, 2HX-17A LP Feedwater Heater 1A drain to condenser control position switch /Dump to condenser 47. 2POS-2544A/B, 2HX-19A LP Feedwater Heater 3A drain to 2HX-17A control position switch/Dump to condenser 48. 2C03 ANN fans and DC power failure relay		

2Y-05-10	18	**RETURN TO SERVICE TESTING** Verify power to the following loads; 1. 2TR-2001, Reactor Coolant pump temp recorder 2. 2TR-2002, Turbine Generator temp recorder 3. 2C04 permissive and bypass lights 4. U2 reactor coolant makeup control 5. 2C04 ANN fans and DC power failure relay 6. 2VNPSE-03269-S, 2W-2A/B U2 Containment purge supply fan Outside Air suction damper solenoid 7. 2FS-03206, 2W-2A/B U2 Containment purge supply fan discharge flow switch 8. 2FS-3214, 2W-43A/B U2 Containment cleanup fan inlet flow switch 9. 2FS-3222A/B, 2W-3A/B control rod drive shroud fan flow switch 10. 2FS-3233, 2R-1, U2 Reactor Vessel cavity cooling air flow switch 11. 2FS-3278, 2W-6A/B Containment purge exhaust fan suction flow switch 12. U2 NIS channel test alarm relay A29 13. 2TR-2000A/B, thermocouple recorder 14. 2NR-45, delta flux differential amplifiers 2-1/2 DA	OPS See note in comments Section 8 of 8. pg	1/16/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-05-01, 05, 06 & 10 | WO 9612082, 9612084, 9612086, 9612087

UNIT 2 | December 16, 1996

Comments:

During return to service testing (Load verification), not every load listed could be verified as having power to it because the unit is shutdown. At least one load per breaker was verified as having power to it. This, along with verification of 120 VAC at the load side of the breaker when closed, is sufficient to verify the new breakers are supplying power to their circuits. 1-96

Point Beach Nuclear Plant

WIRE REMOVAL LOG

Sheet 1 of 1

This log to be used when more than one wire is lifted at a time.

Removal Date 1-15-97 Restoration Date 1-15-97

*NOTE: Use of this form **does not** supersede any of the requirements of PBNP 3.1.1 Independent Verification and Concurrent Checks.*

Fill in the applicable block(s)				Initials			
Location	TB No.	Wire No.	Color	First Person Check	Wire Removed	Wire Restored	Second Person Check
BRK 1	2405	15 X	BLK				
BRK 5		5	BLK				
BRK 6		6	BLK				
BRK 10		10	BLK				

Attach this form to the procedure or MWR.

SMP/RMP/ICP No. _____ MWR No. 9612052 Other _____

PBF-0036
Revision 2 04/29/94

Work Order No. 9612087

Return to Service Testing Reviews

INITIALS
Pre-Release / Pre or Post-RTS

Work Group Post-Maintenance Testing

CYCLE BKRS CHECKING CONTINUITY / TESTING TRIP } SAT SEE NOTE Page 8 of 8 of WP
VERIFY BKR OPERATION VIA VOLTAGE CHECKS

Section XI Equipment Y (N)

Operability Testing

Verify TR-2000 & TR-2001 operable

Inservice Testing

1-3-97

ENGINEERING REVIEW

SECTION XI ENGINEERING REVIEW N/A →

POINT BEACH UNIT 2 RESTART COMMITMENT INDEPENDENT REVIEW RESULTS

Commitment ID Number 59 Rev 1

Commitment Description

The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-070 - replace molded case circuit breakers associated with instrument buses 2Y-05 and 2Y-06.

This will resolve an issue where these breakers are oversized for the wiring they are protecting, creating a potential delay or lack of breaker tripping situation should a fault occur.

Review Methodology

Review modification with Responsible Engineer.

Review modification scope, and if scope was changed, determine change rationale and if there is any safety impact.

Review modification design and installation documents against scope. Identify and review documentation acceptance items.

Verify that the documentation is adequate and that the documentation acceptance items have been completed and documented.

Review the modification tests to verify that the tests, are appropriate and were successfully completed.

Determine if Condition Reports (CRs) were generated in performance of this modification and verify that they are documented/tracked.

Review Results

The modification was discussed with the Responsible Engineer (RE). No issues or concerns regarding the modification installation were identified by the RE.

The modification package (MR 96-070); Safety Evaluation screening; Work Plan for Work Orders 9612082, 9612084, 9612086, 9612087; and Work Plan for Work Orders 9612088 and 9612094 were reviewed.

The Safety Evaluation screening had minor discrepancies with the modification final design and Work Plan. The screening incorrectly referenced action item #2 to Condition Report CR 96-539 instead of action item #1. This CR only has one action item. The safety evaluation screening noted that separate Work Plans would be created for each of the six breakers which are replaced. This was not done. Two Work Plans were created for MR 96-070; one to control the breaker replacements on the Y-05 panel, and another to control the breaker replacements on the Y-06 panel. These discrepancies do not change the results of the 50.59 screening or create a safety issue. The RE has

Commitment ID Number 59 Rev 1

been notified of the discrepancies and has been directed to make the appropriate pen and ink changes to the original documents.

Verification of pen and ink changes to the Control Room/WCC documents was performed. The Document Update Sheet (DUS) identified that the only acceptance item for MR 96-070 was pen and ink changes to the MDB 3.2.11 for the 2Y05 and 2Y06 panels. These changes have not been made to the MDB in either the WCC or Control Room prior to the modification being accepted by the DSS and returned to service. The RE has been notified of this issue and has made the appropriate pen and ink changes to the MDB. This acceptance item has been verified completed.

The DUS for MR 96-070 identified that drawing revisions to the Westinghouse 499 series elementaries would be required for closeout of the modification. The Westinghouse 499 series elementaries, are changes that typically need to be completed as acceptance items to a modification. Based on review of drawings and discussion with the RE, the changes which are proposed (add the breaker size to the drawing) to Westinghouse drawings 499B466 Sh. 847, Sh. 848, and Sh. 1010, represent enhancements to the drawings and are not required to be classified as an acceptance item.

Information regarding the installation/mounting of the breakers was not specific in detail. Questions specific to the SQUG program impacts and seismic mounting were raised with the RE. The RE noted that the replacement breakers were physically like-for-like (mounting, size, weight, etc.) to the old breakers. To address these concerns, the RE presented the modification details to the SQUG group. The SQUG group noted that the mounting and control panels evaluation would not be impacted based on the like-for-like replacement. To document this review, the RE revised the Design Input Checklist (Section F.2) to note the conclusions of the SQUG group.

The Final Design Description provided the maximum circuit load current for each of the replacement breakers. The 2Y-05-06 breaker maximum circuit load is listed at 17 amps. The replacement breaker size trip rating is 20 amps. Since all loads could not be simultaneously energized during PMT, the RE was asked if there would be enough margin in the 2Y-05-06 breaker trip rating. The RE noted that very conservative methods were used to estimate the maximum circuit loads and the 20 amp trip rating will be sufficient.

Post Maintenance Testing consisted of continuity, verification of breaker operation via voltage checks and functional testing (circuit operability checks) of equipment. The PMT actions have been satisfactorily completed and signed off. Based on the scope of this installation, these tests are appropriate PMT for the installation.

Work Orders 9612082, 9612084, 9612086, 9612087, 9612088, and 9612094 and the associated work plans have been installed, tested and accepted by the DSS.

No Condition Reports have been generated in performance of MR 96-070. This was concluded based on an electronic search of the NUTRK system using the Work Order numbers and Modification number as search criteria.

No ECRs were generated in support of this modification.

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 59 Rev 1

Conclusion

Based on this independent review, there are no items involved with Restart Commitment #59 which would impede Unit 2 start up.

Reviewer: _____ 4/22/97

****
* Trkid: U2R22 RESTART *
* Action Number: 75 *
****

Responsible Person:
Urgency: DONE
Work Priority: 99

Activity Pending is: DONE ASSOCIATED WITH A COMMITMENT

----------TITLE AND TASK DESCRIPTION----------

Unit 2 Refueling 22 Startup Commitments

Revise the initial and requalification operator training plans to include a review review of the administrative procedures identified as significant to daily operation of the plant during each 2-year operations training plan.

----------DATES----------

Source Record: 01/10/97	******* Evaluation *********	****** Correction ******
Commitment:	Eval Due:	Corr Act Due: 02/13/97
Action Create: 01/14/97	Orig Eval Due:	Orig CA Due: 02/13/97
Action Closed: 05/03/97	Eval Done:	Corr Act Done:05/01/97

----------PEOPLE----------

Responsible for Overall Action:
Responsible for Current Pending Activity:
Issue Manager:
Initiator:
Punchlist Administrator:

----------UPDATE----------

(01/29/97) In conjunction with an EC commitment, the administrative procedures have been allotted time slots in the LRTP. This will provide the opportunity to systematically review those procedures significant to daily plant operation throughout the course of the training plan.

These administrative procedures are at the inception of an overhaul projectWe are targetted to complete this upgrade project by 6/97 with ensuing coverage of the topics. The exact number of procedures involved is not possible to ascertain, because some of these procedures may be cancelled, combined, etc. during the course of the upgrade. I estimate that this project may scope anywhere from 15 to 25 procedures. Examples of these procedures are many of the OMs (use of dedicated operators, administrative limits, independent check guidelines, work plans, valve and equipment operation, MOV/AOV operation and maintenance, etc.) The scope may also include NPs such as condition reporting, incident investigation initiation,implementation of TS/Safety Related surveillance testing requirements, etc.Operations Management should determine the scope and types of procedures bounded by this commitment by 2/28/97 so that there is adequate time for the procedure upgrade project to produce the desired end product.

(05/01/97) The administrative procedures significant to daily plant operations were identified in company memo NPM 97-0190 from to . Actions have been taken to ensure coverage of these identified items. All identified procedures have been incorporated into TRCR 86.0 to ensure coverage in initial training. TRPR 33.0 has been revised to reflect a commitment to cover the identified procedures on a biennial basis and an appendix was added to the program containing the list of procedures.

(05/01/97) Passed to for acceptance of work.

(05/01/97) Passed to . for Verification.
Actions completed as of 5/1/97. Supporting documentation provided to Close.

(05/01/97) Passed to for Final Close Out.
The document revisions meet the intent of this commitment. This item is ready to be closed.

(05/03/97) PLA Closure of Item.

----------REFERENCES----------

TRPR 33.0 TRCR 61.0
TRCR 68.0 TRCR 86.0
NPM 97-0190

----------MISCELLANEOUS----------

Originating Agency: System: XX
NRC Open Item Number: NRC Status:
Related Outages: U2R22
Engineering Work Type: None Specified
Person Hours: Original Estimate =
Current Estimate =
Actual Hours =

INTERNAL
CORRESPONDENCE

#75

NPM 97-0190

To:

From:

Date: April 15, 1997

Subject: ADMINISTRATIVE PROCEDURE TRAINING FOR OPERATIONS PERSONNEL

Copy To:

File

Reference: Restart Commitment #75, NRC 96 Enforcement Conference Action Number 20

The table enclosed in this memo lists administrative procedures significant to daily operation of the plant which are recommended to be included for review within the two year operations training plan. These procedures are listed in the Licensed Operator Retraining column of the table and are categorized by procedure groups.

The administrative procedures which are applicable to the Initial License Training Program are those in the Licensed Operator Retraining column plus the Initial License Training column.

This recommendation is based on input from (Duke Engineering), (DSS), the Operations Training Staff, and . The two year operations training plan and the Initial License Training Program must be modified to incorporate these procedures. This list will be reviewed and revised as necessary in conjunction with development of subsequent two year Operations training plans.

Organization Manual

Licensed Operator Retraining	Initial License Training
(none)	NOM DCS - Duty and Call
	NOM DTA - Duty Technical Advisor
	NOM MSS - Manager Supervisory Staff
	NOM OPS - Operations
	T.S. 15.6.2 - Organization (15.6.2.1 through 15.6.2.3)
	FSAR 12.2 - Organization
	Note: All of the above could be covered in one lesson plan with OM 3.1, Shift Staffing.

Admin Manual

Licensed Operator Retraining	Initial License Training
AM 3-3: At Power Pri-Sec Leakage Program	AM 3-14: FSAR Maintenance & Update

Nuclear Power (NP's)

Licensed Operator Retraining	Initial License Training
NP 1.1.4: Procedure Use and Adherence	NP 1.9.4: Confined Spaces Procedure
NP 1.2.2: Technical Procedure Classification, Review and Approval	NP 1.9.5: Industrial Safety Equipment
NP 1.2.3: Temporary Changes	NP 1.9.13: Ignition Control
NP 1.2.4: Procedure Documentation Requirements	NP 2.3.4: System Restoration
NP 1.2.6: Infrequently Performed Tests or Evolutions	NP 4.2.19: General Rules for Work in Rad Areas
NP 1.6.4: Verbal Communication	NP 5.2.6: FSAR Revisions (this should be coupled with AM 3-14)
NP 1.6.6 Work Duration Restrictions	NP 5.3.1: Condition Reporting System
NP 1.9.15: Danger Tag Procedure	NP 8.1.3: Post Maintenance Testing
NP 2.3.3: Work Control Center	NP 10.3.1: Authorization of Changes, Tests and Experiments (10CFR50.59 and 72.48 reviews)
NP 3.2.2: Primary Water Chemistry Monitoring Program	
NP 3.2.3: Secondary Water Chemistry Monitoring Program	
NP 5.3.7: Operability Determination	
NP 7.3.1: Temporary Modifications	
NP 8.1.1: Work Order Processing	
NP 10.1.1: TS Equipment OOS/Voluntary Entry into LCO	

Operations Manual

Licensed Operator Retraining	Initial License Training
OM 1.1: Conduct of Plant Operations	OM 3.1: Shift Staffing
OM 3.12: Equipment Status	OM 3.4: Self Checking
OM 3.17: Independent Checks	OM 3.9: Watchstation Status Checks and Watchstation Turnover Guides
OM 3.18: Operations Administrative Limits	OM 3.13: Operations Notebook
OM 3.19: RCS Leakage Determination	
OM 3.20: MOV and AOV Operation	
OM 3.26: Dedicated Operator	
OM 3.27: Appendix R Requirements	
OM 3.29: Pre and Post Job Briefings	
OM 3.7: EOP Usage & Adherence	
OM 4.1.1: Post-Trip Review	
OM 4.2.2: In Service Tests	
OM 5.4.1: OPS Group Periodic Testing and Surveillance	
OM 5.4.4: Control of Posted Information	
OM 6.1: Performance Assessment Program	
DCS Handbook: SRO's Only	

Approved: ____ _____

1

ORIGINAL

UNIT 2

~~WCC TRACKING~~

Equipment: Y-06-05

Problem Description:
REPLACE BREAKER WITH PROPER SIZE BREAKER TO PROVIDE CORRECT CIRCUIT PROTECTION

Originator: EPE

Tag/Sticker Placed: T No: 99323 Tag/Sticker Lcm: 2Y-06

Job Type: CORRECTIVE MAINTENANCE

Work Function: WORK ORDER

Mod Req #: 96 - 069

QA: N SEIS: 3 Operability Pre-Test: N Procedures:
SR: N LCO: N
EQ: N PMT: Y Operability Post-Test: N Procedures:
SSA: Y CTV: N MRULE: Y
A/P: P CACC:
RRN:
QA Codes:
Tools Needed:

Work Plan/Inspections: Planner:

LINE SUPERVISER: 2057 NAME: DATE: 1/16/97

Plant Conditions:
Other Conditions:
Fire Barrier Penetration Permit:
Equipment Isolation Required:
Isolation Tag Serial #:

Operability Pre-Test Complete:
Permission granted to perform work:
Does DSD Notification Req: Y Doc DSD Signature: DATE: 1/17/97

Special Notification:

Number of Steps: 001
Acct #: 00 - 0000N - P500263 - 00000
MEG Code: MECT Tech Manual Cntl #:

* WORK ORDER CLOSEOUT *

Group Head Signature: Date: 1/22/97

CRIGINAL
WO Priority 4 * UNIT 2 *
Equipment
Physica Location
Sequence No 01
Short Desc REPLACE BREAKER

PLANNED
Crew AE
Shift 2
Class 420

Work Plan Description:
SEE ATTACHED WORK PLAN.
ALL QC, FME, AND PMT ADDRESSED IN ATTACHED WORK PLAN.

QC REVIEW REQUIRED Y

WORK PERFORMED Replaced VB taker with one from 2/c4

MTE MRTW-027

ACTUAL USED
SHIFT
WORKER CLASS 420
NUMBER OF WORKERS 2
TOTAL HOURS 3.0
TTL EXPOSURE/STEP (MREM)

PARTS USED LIST ATTACHED Y / (N)
WO TAGS REMOVED (Y) / N / NA WORK COMPLETE DATE 1/17/97
EMPLOYEE NUMBER 12307 EMPLOYEE NAME

* WORK COMPLETED *
Cause Failure Code PM / (CVC) / NRM /
As Found-Out of Spec Y / N / (NA) Maintn History Review Required Y / N
Failed Component N/A
Corrective Action (NA) RP/RE/
LINE SUPERVISOR 2057 NAME DATE 1/17/97

* EQUIPMENT RETURN TO SERVICE *
Operability Post Test Req Operational
EQUIP. TAKEN OOS - DATE 1/17/97 TIME 0100 RETURN DATE 1/17/97 0145
Operability Procs Performed None
NON OPS SUPV NAME DATE
OSS PB1718 NAME DATE 1/17/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-06-01 & 05 | WO 9612088, 9612094
Wade Berger
UNIT 2 | January 2, 1997

1.0 PURPOSE

This WO work plan provides direction for the removal of breakers 2Y-06-01 & 05 and replacement with Westinghouse EHD 1015 15 amp breakers.

2.0 INITIAL CONDITIONS

1. Reactor is in a cold shutdown **OR** defueled.
2. Verify loads listed in Return to service steps ~~20~~ 15 and ~~21~~ 16 can be taken OOS.
3. Permission has been granted to remove/replace breakers 2Y-06-01 & 05.

3.0 ATTACHMENTS

3.1 Maintenance Electrical Safety Checklist, PBF-9044 form

3.2 Wire Removal Form, PBF-0036

4.0 REFERENCE DRAWINGS

Westinghouse elementary drawing sheets 839, 877, 878, 901, 1534, and 1539

5.0 MATERIALS

1. Westinghouse EHD 1015 breaker (Quantity 2)

Q70013508 8pp

WO WORK PLAN

Removal/Replacement of breakers 2Y-06-01 & 05 WO 9612088, 9612094

UNIT 2 January 2, 1997

Hold Point	Step No.	Work Plan Description	Worker	Date
NOTE		***Breakers 2Y-06-01 & 05 provide power to C01 MOBs 175, 178-181, 183, 184, and 2C03 MOBs 240, 241, 271, and U2 Preseperator system.***		
	1	Verify initial conditions have been met.	OPS	1-17-97
CAUTION	**ALL COMPONENTS AND TERMINALS LOCATED IN THE PANEL ARE ASSUMED TO BE ENERGIZED, TAKE NECESSARY PRECAUTIONS.**			
	2	Responsible Engineer to perform a pre-job briefing to include scope of project, personnel safety, and installation.	RE	1/17/97
FME:	General FME Statement: Tools and equipment shall be checked for loose parts and debris and temporary covers should be installed for foriegn material exclusion (FME) of system/components, per Exclusion of Foreign Material from Plant Components and systems, NP 8.4.10.			
	3	Verify that breakers 2Y-06-01 & 05 are in the "OFF" position **OR** coordinate with OPS to place breakers 2Y-06-01 & 05 in "OFF".	MTN	
	4	Remove 2Y-06 panel cover. Post panel with appropriate "Danger alive" placards.	MTN	
	5	Disconnect wiring from breakers 2Y-06-01 & 05, recording wires removed on PB-0036 Wire Removal Form.	MTN	
	6	Remove breakers 2Y-06-01 & 05 from panel.	MTN	
NOTE:	***Utilize the spare EHD 1015 breakers removed from 2Y-04 (WOs 9613292 & 9613293) for installation in 2Y-06.***			
	7	Prior to installing the replacement breakers, cycle breakers five times per the following directions; 1. Close breaker 2. Trip breaker using the trip to test button(red) on breaker. 3. Open breaker. 4. Use continuity checks to verify proper positioning of breaker contact on final cycle (closed, trip free, and open. Acceptance Criteria: Closed ≤ 1 ohm / Open > 1 Mohm	MTN	
	8	Install the replacement Westinghouse EHD 1015 breakers in 2Y-06-01 & 05.	MTN	
	9	Reconnect leads using attached PBF-0036 Wire Removal Form.	MTN	

	10	Torque the load side leads per the following step. For breakers with capture wire connections, determine the wire size of the leads connected to the breaker and torque per the following table: **Wire Size** **#14 to #10** **#8** **#6 to #4** **#2 to #1/0** Torque Value (in/lbs) 20 40 45 50 Record torque wrench MTE number and calibration date on the WO and work plan. MTE A T C W 0 2 7 Calibration Due Date 4-97	MTN	
NOTE		*Use calibrated digital voltmeter for the following step.*		
PMT:	11	**POST MAINTENANCE TEST** A. Verify that each breaker reads 0 VAC on the load side of the breaker with the breaker open. B. Verify that each breaker reads a nominal 120 VAC on the load side of the breaker with the breaker closed. C. Position the breakers to the off position.	MTN	
FME:	12	Perform a Foreign Materials Exclusion inspection of panel to verify all tools and foriegn materials are removed	MTN	
	13	Reinstall panel cover.	MTN	
	14	Record all QAR, MTE and Lot numbers on WO.	MTN	

BKR removed from 2Y-04 D381

2Y-06-01	15	RETURN TO SERVICE TESTING Verify power to the following loads: 1. C01 and C02 Annunciator Fan & DC Power Failure Relay Supply 2. 2LS-4100 through 2LS-4103, 2P-10A and 2P-10B Room Drain and Sump Indication (rear C01) 3. 2FIS-640, 2FIS-649 and 2FIS-650, CCW Flow Indicating Switches 4. 2HC-105, Boric Acid Storage tank (2T-6C) Recirc Hand Controller 5. 2HIC-957, accumulator Nitrogen Supply Controller 6. 2POT/I-2085, Reheat Steam Supply Temp Controller 7. 2TC-3620, Turbine Lube Oil Temp Controller 8. Generator Bkr 122 and 142, Auxiliary Relays for Computer and Annunciation 9. 2MS-2083, Steam Generator A Sample Isolation 10. 2MS-2084, Steam Generator B Sample isolation 11. Unit 2 Auto Turning Gear Control 12. 2MS-2042 and 2MS-2045, Steam Generator Blowdown Steam Isolation Control Valves 13. 2C-144, 2MS-2090, SW Supply to 2P-29 Seals	OPS	1/17/97
2Y-06-05	16	RETURN TO SERVICE TESTING Verify power to the following loads; 1. U2 Preseperator system See Note on Pg 5 of 5.	OPS	1/17/97

WO WORK PLAN

Removal/Replacement of breakers 2Y-06-01 & 05 WO 9612088, 9612094

UNIT 2 January 2, 1997

Comments:

Note: Because Unit 2 is shutdown, not all loads listed in step 15 may be able to have power verified with breaker 24-06-1 closed. At least one load is sufficient for verification of the breaker's ability to supply load to its circuits when closed. This, along with verification of voltage on the load side of the breaker when closed and no voltage when open is sufficient to demonstrate the breaker is performing its intended function of opening and closing the circuit.

1/17/97

Point Beach Nuclear Plant

WIRE REMOVAL LOG

Sheet 1 of 1

This log to be used when more than one wire is lifted at a time.

Removal Date 1-17-97 Restoration Date 1-17-97

*NOTE: Use of this form **does not** supersede any of the requirements of PBNP 3.1.1 Independent Verification and Concurrent Checks.*

Fill in the applicable block(s)				Initials			
Location	**TB No.**	**Wire No.**	**Color**	**First Person Check**	**Wire Removed**	**Wire Restored**	**Second Person Check**
1	106	1	BLK				
5	7	X15	+				

Attach this form to the procedure or MWR.

SMP/RMP/ICP No. NE 9612055 + 9612094 MWR No. _____ Other _____

PBF-0036
Revision 2 04/29/94

Work Order No. 9612094

Return to Service Testing Reviews

INITIALS
Pre-Release / Pre or Post-RTS

Work Group Post-Maintenance Testing

CYCLE BKRS CHECKING CONTINUITY / TESTING TRIP
VERIFY BKR OPERATION VIA VOLTAGE CHECKS ✓

Section XI Equipment Y (N)

Operability Testing

Verify preoperator ind on 2C03 ✓

Interface Testing

NONE

1-3-97

ENGINEERING REVIEW

SECTION XI ENGINEERING REVIEW

N/A →