



Point Beach Nuclear Plant
6610 Nuclear Rd., Two Rivers, WI 54241

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NPL 97-0127

April 1, 1997

Document Control Desk
U. S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, DC 20555

Ladies/Gentlemen:

DOCKET 50-301
RESTART DOCUMENTATION
POINT BEACH NUCLEAR PLANT, UNIT 2

Pursuant to discussions conducted at a January 31, 1997, NRC/Wisconsin Electric senior management meeting, we are enclosing documentation for review by your staff to support restart issues as identified on the Unit 2 Startup Commitment List. The items are:

#7: Complete a review of Unit 2 administrative controls implementing or referencing Technical Specifications to ensure Technical Specification requirements are appropriately reflected in the administrative controls.

We are enclosing letter NPL 97-0048 dated February 28, 1997 detailing our review findings. Also enclosed are Condition Report (CR) descriptions for 97-0723, 97-0724, 97-0725, 97-0726, 97-0727, 97-0746, 97-0766 and 97-0831 that were issued based on our findings. The independent review results are also enclosed.

#15: Review 20% of the work orders performed since January 1, 1995 on Unit 2 or common PSA safety significant systems (AFW, SW, EDG, IA, 4.16 kV, gas turbine, and CCW) to verify adequate PMT was performed to ensure system/component safety function.

We are enclosing Quality Assurance Program Surveillance Report S-P-97-01 dated March 1, 1997 that was performed January 20-February 10, 1997. Also enclosed are Quality Condition Report (QCR) descriptions for 97-0002, 97-0005, 97-0006, 97-0007, 97-0008, 97-0009, 97-0010, 97-0011, 97-0012, and 97-0013 that were issued based on our findings. The independent review results are also enclosed.

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9704100022 970401
PDR ADOCK 05000301
P PDR



#16: Complete all Unit 2 Maintenance Rule-related work order post-work, pre-PMT reviews prior to the approach to criticality.

We are enclosing the independent review results.

#33: Implement interim improvements for the 10 CFR 50.59 process to require that all screenings be either authored or reviewed by a member of the multi-disciplinary review team.

We are enclosing NP 10.3.1, Revision 5, dated February 14, 1997, Safety Evaluation Form PBF-1515, training records and a listing of qualified in-line review team members dated March 17, 1997. We are also enclosing the independent review results.

#37: Include return to service testing in the plant schedule, both outage and non-outage.

We are enclosing examples of PMT added to the Major Item Work List, NP 8.1.1, Revision 4, dated January 24, 1997. We are also enclosing the independent review results.

#41: Perform Modification 92-141 that relocates the RHR flow control valve controllers on 2C-03 for human factoring.

We are enclosing Work Order 9605772, MWR Work Plan MR 92-141, and MR 92-141. We are also enclosing the independent review results.

#70: Install a new level control system for the brine tank (T-118) per Modification 92-008*Q.

We are enclosing Work Order 9701182, IWP 92-008*Q-02 and Engineering Change Request 97-0008. We are also enclosing the independent review results.

#74: Each operating crew will receive simulator training to gain proficiency in casualty response, the expected response of the newly installed steam generators and reactor core, and placing the turbine on-line.

We are enclosing Lesson Plan TRPR 33.0, Revision 0. We are also enclosing the independent review results.

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Also enclosed is the Unit 2 Startup Commitment List dated March 27, 1997.

Sincerely,

A handwritten signature in dark ink, appearing to read "Douglas F. Johnson". The signature is fluid and cursive, with a large initial "D" and "J".

Douglas F. Johnson

Manager-

Regulatory Services & Licensing

MBK/hds

Enclosures

cc: NRC Regional Administrator

Responsible Person:

* Trkid: U2R22 RESTART *
* Action Number: 7 *

Urgency: DONE

Work Priority: 99

Activity Pending is: DONE

ASSOCIATED WITH A COMMITMENT

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

Unit 2 Refueling 22 Startup Commitments

Prior to leaving cold shutdown, the review of Unit 2 administrative controls implementing or referencing Technical Specifications to ensure TS requirements are appropriately reflected via administrative controls shall be included in appropriate documents.

-----DATES-----

Source Record: 01/10/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 03/19/97
Action Create: 01/10/97	Orig Eval Due:	Orig CA Due: 02/11/97
Action Closed: 03/31/97	Eval Done:	Corr Act Done: 02/28/97

-----PEOPLE-----

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

-----UPDATE-----

(01/29/97) My planned course of action is as follows: 1) Obtain existing cross-references which relate TS surveillances/LCOs to plant procedures. 2) Annotate the procedure number on the associated surveillance/LCO in the Technical Specifications 3) Provide initial cross-reference information to contractor and NPBUR personnel to verify accuracy of information and perform technical review of procedure adequacy in implementing associated Technical Specification. 4) Perform electronic search of all plant procedures for references to Technical Specifications. 5) Further refine TS/Procedure cross-reference and perform review in #3 above. 6) Provide close-out documentation which includes the TS/procedure cross-reference, a list of discrepancies, and recommendations.

Status as of 1/29/97--Several existing cross-references were obtained via NPBUR personnel suggestions. All applicable information from these cross-references has been incorporated into "master" cross-reference. The technical review is in progress to verify this information.

An electronic search of all plant procedures with references to the Technical Specifications has been completed. 648 procedures were identified. All of these procedures have been reviewed and applicable information annotated on the master cross-reference. Technical review has commenced on this information.

Currently, I am going back and trying to identify implementing procedures for LCOs/Surveillances which are still without an identified administrative control which implements them.

I estimate that I am approximately 25% complete with this action item, with the feeling that the technical review will be extremely arduous and time consuming.

(01/31/97) This item was discussed at the NPBUR Senior Team meeting yesterday. Due to the fact that separate thorough technical reviews are being conducted on procedures to complete other U2 start-up items in parallel with this review, this review will only entail an administrative verification that all TS surveillance frequencies and associated LCOs are correctly indicated in NPBUR procedures and other administrative controls.

(02/05/97) Requested Due Date: 02/25/97

(02/06/97) Changed the Due Date from: 02/11/97 to 02/25/97
This extension is requested due to my less than expected available time to devote to this project because of greater than expected routine, NRC-required regulatory work. This administrative review has required more specific technical knowledge than originally anticipated. Therefore, necessary support from procedure "owners" may cause further delays in the completion of this project.

ACTION ITEM STATUS REPORT

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03/31/97

(02/24/97 Requested Due Date: 03/19/97

(02/24/97) Changed the Due Date from: 02/25/97 to 03/19/97
Additional time needed to evaluate apparent discrepancies and match LCOs to surveillances.

(02/24/97) Changed the Due Date from: 03/19/97 to 03/19/97

(02/28/97 Passed to for acceptance of work.

(02/28/97) Passed to for Verification.

An evaluation of PBNP Unit 1 and 2 administrative controls for implementation of Technical Specifications was completed on February 28, 1997, and forwarded to via NPL 97-0048. Condition reports will be written on 14 possible procedural inadequacies and other administrative deficiencies. This item can be closed.

(03/28/97 Passed to for Final Close Out.
Collected documentation and reviewed same. This item is ready for closeout.(03/31/97) PLA Closure of Item.
Enforcement Conference Item #3 also addresses this issue. NPL 97-0048 dated February 28, 1997 addresses this issue. CRs 97-0723, 97-0724, 97-0725, 97-0726, 97-0727, 97-0746, 97-0766, and 97-0831 were written documenting items for future followup.

-----REFERENCES-----

PBL-97-0033	IR 96-008
NPL 97-0048	CR 97-0723
CR 97-0724	CR 97-0725
CR 97-0726	CR 97-0727
CR 97-0746	CR 97-0766
CR 97-0831	

-----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

NPL 97-0048

To: /

From:

Date: February 28, 1997

Subject: EVALUATION OF PBNP ADMINISTRATIVE CONTROLS IMPLEMENTATION
OF TECHNICAL SPECIFICATIONS

Copy To:

File

Attached is our evaluation of Enforcement Conference / Unit 2 Restart Commitment #7. "Complete a review of administrative controls implementing or referencing Technical Specifications to ensure Technical Specification requirements are appropriately reflected in the administrative controls." This evaluation was conducted for Units 1 and 2 to ensure that all limiting conditions for operation (LCOs) in Technical Specifications Section 15.3 and surveillances in Technical Specifications Section 15.4 are implemented by plant procedures.

Approximately 700 plant procedures were reviewed. Although the evaluation consisted of an administrative review to ensure that Technical Specifications LCOs and surveillances are implemented at the required frequencies, a limited technical adequacy review was also conducted when possible. However, it is recommended that a complete technical adequacy review be conducted on a sample of these procedures. This evaluation did not include a review of procedure implementation of Action statements for LCOs or a review of procedure call-ups in the CHAMPS system.

During the course of this review, several common themes emerged:

1. Technical Specifications surveillances are being conducted at their required frequencies with the exception of 14 possible procedural inadequacies. Several other administrative deficiencies were also identified.
2. The tiers of administrative procedures reiterating Technical Specifications requirements are rife with inaccuracies and inconsistencies.
3. Specific references to affected Technical Specifications is sparse. When references to affected Technical Specifications were included, many times they were incorrect.
4. Citation of the affected Technical Specifications requirement satisfied by implementing procedures is highly variable. Some procedures properly cite the specific requirement while others may only make casual reference to a major Technical Specifications sub-section.

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This evaluation completes NUTRK action items U2R22 Restart #7 and NRC 96EC #3. Condition Reports will be initiated on the findings documented in the "Comments" section of this evaluation.

PBNP Technical Specifications Implementation in Administrative Controls
Closeout of NUTRK Action Items U2R22 Restart #7 and NRC 96EC #3

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
15.3.1 A.1 a	When the reactor is critical, at least 1 RCP shall be in operation	--	ARB C02 F4-4 steps 6.3 & 6.4, OP-1B step 3.8, 3.9 OP-1C step 2.1.1 OP-4B step 3.1	--
15.3.1 A.1 b	When the reactor is subcritical and RCS temp > 350°F, at least 1 RCP shall be in operation	--	CL-1D step 3.1, RESP 3.1 steps 3.5.6, 5.14.1 invoke the test exception to this LCO.	RESP 3.1 step 5.14.1 states further TS restrictions without providing specific reference (no dilutions, core outlet 10°F < saturation, trip breakers open)
15.3.1 A.1 c	At least 1 RCP or RHR system shall be in operation when reducing Boron conc.	--	OP-1A step 2.2.4, 2.5.3, 4.17.3, OP-1B step 3.7	--
15.3.1 A.2 a	One Steam Generator shall be operable when RCS temp > 350°F	15.4.2 A	CL-1A step 1.2 CL-1D step 3.1	--
15.3.1 A.3 a	Components for decay heat removal capability at RCS temperatures between 140 and 350°F	--	OP-1A note for step 4.6.5, CL-1D steps 1.1, 1.6, 2.1, 2.22, IT-530 & IT-531 (Unit 1) and IT-535 & IT-536 (Unit 2) steps 3.2 system leak test PRECAUTIONS & LIMITATIONS for decay heat removal capability	--
15.3.1 A.3 b	Components for decay heat removal capability at RCS temperatures <140°F	--	OP-4D pat 1 step 3.1, CL-1D steps 1.1, 1.6, RMP 118 steps 2.2.1 & 2.2.2 (15I-852A(B) valve operator maintenance references this LCO), TS-30 step 2.2 and TS-31 step 2.2 leak test PRECAUTIONS & LIMITATIONS for decay heat removal capability, IT-531 (Unit 1) and IT-536 (Unit 2) steps 3.2 system leak test PRECAUTIONS & LIMITATIONS for decay heat removal capability	--
15.3.1 A.4 a	At least one pressurizer safety valve operable when reactor vessel head is on	Table 15.4.1-2 #11	CL-1D steps 1.2, 2.2, 3.3	--
15.3.1 A.4 b	Both pressurizer safety valves operable when reactor is critical	Table 15.4.1-2 #11	CL-1A step 1.3	--
15.3.1 A.5 a	Two PORVs and their associated block valves shall be operable	Table 15.4.1-1 #33, #34, #35 Table 15.4.1-2 #21a, #21b	CL-1A step 1.3	--
15.3.1 A.6	Pressurizer shall be operable with 100 KW of heaters available, water level between 10 and 95%, and at least one bank of heaters shall be supplied from an emergency bus power supply	Table 15.4.1-2 #30 Table 15.4.1-2 #9a	CL-1D step 4.2, CL-1A step 1.3 & 1.8, TS-43 heater group quarterly energy input test, RESP 3.1 step 5.8 measures heater power	--
15.3.1 A.7 a	At least one Reactor Coolant Gas Vent System path shall be operable from both the reactor head and the pressurizer	--	CL-1A step 1.9, CL-1D steps 2.4, 3.5, 4.3	--
15.3.1 B.1	RCS temperature and pressure limit curves	--	OP-1A steps 2.4.3, 2.4.10, 2.4.12 OI-105, step 2.1	--
15.3.1 B.1 a	Heatup ≤ 100°F in any 1 hour	--	OI-105, step 2.1	--
15.3.1 B.1 b	Cooldown ≤ 100°F in any 1 hour	--	OI-105, step 2.1	--
15.3.1 B.1 c	Average temperature change of ≤ 10°F per hour during hydros & leak testing	--	OP-1A step 2.4.11	--

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
15.3.1.B.2	Steam generator pressure ≤ 200 psig if SG vessel shell temp $< 70^{\circ}\text{F}$	---	OI-1/2 A/B step 2.1 ($\geq 70^{\circ}\text{F}$ to pressurize)	---
15.3.1.B.3.a	Pressurizer temperature heatup $\leq 100^{\circ}\text{F}$ in any 1 hour, cooldown $< 200^{\circ}\text{F}$ in any 1 hour	---	OP-1A step 2.4.2 (Admin limit)	---
15.3.1.B.3.b	Spray temperature within 320°F of pressurizer temp	---	TS-43 heater group quarterly energy input test notes this limitation OP-1A step 2.4.8	---
15.3.1.B.4	Reactor vessel pressure temperature curves prior to expiration	---	---	Currently not tracked, OI covers specimen removal
15.3.1.C.1	Reactor coolant specific activity ≤ 1.0 microcurie per gram Dose Equivalent I-131	Table 15.4.1-2 #1	CL-1D steps 3.9, 4.7	---
15.3.1.C.2	Reactor coolant specific activity $\leq 100/\text{E}$ microcuries per gram	Table 15.4.1-2 #1	CL-1A step 1.4, CL-1D steps 3.9, 4.7, CAMP-406 (E bar determination)	---
15.3.1.D.1	RCS leakage $\leq 1\text{gpm}$	Table 15.4.1-2 #16	OI-55 step 3.1, CL-1D steps 2.5, 3.6, 4.4	---
15.3.1.D.2	RCS leakage $\leq 10\text{gpm}$	Table 15.4.1-2 #16	OI-55 step 3.2, CL-1A step 1.5 CL-1D steps 2.5, 3.6, 4.4	---
15.3.1.D.3	Leakage evals per 15.3.1.D.2 to assure $< 10\text{CFR}20$ limits to the public	Table 15.4.1-2 #16	CL-1A step 1.5, CL-1D steps 2.5, 3.6, 4.4	This TS, although implicit in the text of these steps is not directly referenced
15.3.1.D.4	Primary to secondary leakage $\leq 500\text{gpd}$	Table 15.4.1-2 #16	RMSASRB CI RE-219 RMSASRB CI RE-222 RMSASRB CI RE-225 RMSASRB CI RE-231 RMSASRB CI RE-232 CL-1D steps 2.7, 3.7, 4.5 CL-1D steps 2.6, 3.8, 4.6	---
15.3.1.D.5	Non isolatable RCS leakage	Table 15.4.1-2 #16	OM-4.1.1 step 4.6 ECL-5 step 3.1	---
15.3.1.D.6	No reactor restart until leak is repaired	Table 15.4.1-2 #16	RMSASRB CI RE-211 RMSASRB CI RE-212	RMSASRB CI RE-305 should also refer to 15.3.1.D.7
15.3.1.D.8	Secondary coolant gross radioactivity shall be monitored continuously by an air ejector gas monitor. Secondary coolant gross radioactivity shall be measured weekly. Secondary coolant gross radioactivity shall be measured daily if air ejector not operating	Table 15.4.1-2 #16	RMSASRB CI RE-215 RMSASRB CI RE-225 CL-1D steps 1.7, 2.8, 3.10, 4.8, PBNP 8.4.1	---
15.3.1.E.1	The concentration of oxygen in the reactor coolant shall be $\leq 0.1\text{ ppm}$	Table 15.4.1-2 #1	OP-1A step 4.7, CL-1D step 2.9 $< 100\text{ppb}$, NP 3.2.2 step 7.1(a) (general reference to 15.3.1.E - info only)	---
15.3.1.E.2	The concentration of chloride in the reactor coolant shall be $\leq 0.15\text{ ppm}$	Table 15.4.1-2 #1	CL-1D step 2.10 $< 150\text{ppb}$, OP-1A step 4.6.7 ref's NP 3.2.2, NP 3.2.2 step 7.1(a) (general reference to 15.3.1.E - info only)	---
15.3.1.E.3	The concentration of fluoride in the reactor coolant shall be $\leq 0.15\text{ ppm}$	Table 15.4.1-2 #1	CL-1D step 2.10 $< 150\text{ppb}$, OP-1A step 4.6.7 ref's NP 3.2.2, NP 3.2.2 step 7.1(a) (general reference to 15.3.1.E - info only)	---
15.3.1.F.1	Reactor shall not be made critical when the moderator	---	RESP 4.1 step 5.17 measures the HZP MTC and	---

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
	temperature coefficient is more positive than 5 pcm/°F		directs administrative limit of Bank D withdrawal to maintain < +5 pcm/°F CL-1A step 1.6 MTC ≤ +5pcm/°F, RESP-4.1 step 6.1.1	
15.3.1.F.2	Reactor power shall not exceed 70% of Rated Power if the moderator temperature coefficient is positive	--	OP-1C step 2.3.2, RESP-4.1 step 5.18, ROD 8.5,	--
15.3.1.F.3	During criticality approach, at least 1 cps attributable to neutrons shall register on a narrow range source range NI	--	RESP-4.1 step 4.15 (sr ≥ 1cpm)	if RESP-4.1 is not controlling the startup, this requirement is not called out in the controlling procedure (OP-1B step 4.10)
15.3.1.F.4	Reactor core criticality curve Fig 15.3.1-1	--	CL-1A step 1.7, OP-1B step 4.6	--
15.3.1.F.5	Reactor maintained subcritical by at least 1% ΔK/K until normal water level is established in pressurizer	--	CL-1D step 3.31 OP-1B step 4.6	TS referenced in this step of CL-1D should be 15.3.1.F.5 not 15.3.1.F.4
15.3.1.G.1	Tavg < 578°F	Table 15.4.1-1#4	ARB CO4.3.10 & 3.11 STPT 6.2	Alarm @ 575, Deviation at +3/+5
15.3.1.G.2.a	Unit 1 RCS pressurizer pressure shall be maintained ≥ 2205 psig during operation at 2250 psia or ≥ 1955 psig during operation at 2000 psig	Table 15.4.1-1#7	--	Not in OP, AOP, or BG AOP
15.3.1.G.2.b	Unit 2 RCS pressurizer pressure shall be maintained ≥ 1955 psig during operation at 2000 psig	Table 15.4.1-1#7	--	Not in OP, AOP, or BG AOP
15.3.1.G.3.a	Unit 1 RCS raw measured flow ≥ 181,800 gpm	Table 15.4.1-1#5	RESP 6.2 precision measurement of RCS flow (RESP 6.3 performed when 6.2 is not practical)	--
15.3.1.G.3.b	Unit 2 RCS raw measured flow ≥ 174,000 gpm	Table 15.4.1-1#5	RESP 6.2 precision measurement of RCS flow (RESP 6.3 performed when 6.2 is not practical)	--
Figure 15.3.1-2	Cooldown limits	--	OI-105	--
Figure 15.3.1-5	Dose equivalent I-131 vs % Power	Table 15.4.1-2#1	Referenced in CL-1A steps 1.4, 3.6	--
15.3.2.A	When fuel is in the reactor, there shall be at least 1 flow path to the core for boric acid injection.	Table 15.4.1-1 #21	CL-1D steps 1.4, 1.8, 2.12, 2.13, 3.11, 3.12	--
15.3.2.B.1	Reactor shall not be taken critical unless a minimum of 2 charging pumps for that reactor are operable	Table 15.4.1-1 #23 Table 15.4.1-2 #31	CL-1A step 10.3.1, CL-1D step 2.13, 3.12, 4.10	--
15.3.2.B.2	Reactor shall not be taken critical unless 2 flowpaths from BASTs or RWST operable	Table 15.4.1-1 #21	CL-1A step 10.3.2, 10.3.3, CL-1D step 2.14, 3.13, RMP 29C step 4.1.4, RMP 29D step 4.1.2, RMP 29E step 4.1.2	--
15.3.2.B.3.a	If relying on BAST paths, then one BA transfer pump operable per flowpath w/ one of the BAST flowpaths lined up to supply applicable reactor.	Table 15.4.1-1 #21	CL-1A step 10.3.3, CL-1D step 2.15.1, 3.14.1	--
15.3.2.B.3.b	If relying on BAST paths, then BA concentration, minimum volume and solution temperature meet Table 15.3.2-1	Table 15.4.1-1 #22	CL-1A step 10.3.3, CL-1D step 2.15.2, 3.14.2, NP 3.2.2 step 8.5 (general reference to 15.3.2 - info only)	--
15.3.2.C.1	A second reactor shall not be taken critical unless a minimum of 2 charging pumps for that reactor are operable	Table 15.4.1-1 #23 Table 15.4.1-2 #31	CL-1A step 9.3.1	--
15.3.2.C.2	A second reactor shall not be taken critical unless 2 flowpaths from BASTs or RWST operable to each RCS	Table 15.4.1-1 #21	CL-1A step 9.3.2, CL-1D steps 2.14, 3.13	--

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
15.3.2.C.3.a	If relying on BAST paths, then one BA transfer pump operable per flowpath w/ one of the BAST flowpaths lined up to supply applicable reactor	Table 15.4.1-1 #21	CL-1A step 9.3.3, CL-1D steps, 2.15.1, 3.14.1	--
15.3.2.C.3.b	If relying on BAST paths, then BAST concentration, minimum volume and solution temperature meet Table 15.3.2-1	Table 15.4.1-1 #22	CL-1A step 9.3.3, CL-1D steps 2.15.2, 3.14.2	--
Table 15.3.2-1	BAST concentration, minimum volume and solution temperature	Table 15.4.1-1 #22 Table 15.4.1-2 #4, #20	CL-1A steps 9.3.3, 10.3.3, OI-99A step 3.4.5	--
15.3.3.A.1.a	A reactor shall not be made critical unless the RWST contains $\geq 275,000$ gal of ≥ 2000 ppm boron conc. water	Table 15.4.1-2 #3	CL-1A step 2.1.1, CL-1D step 3.15	--
15.3.3.A.1.b	A reactor shall not be made critical unless each accumulator is ≥ 700 psig and between 1100 ft^3 and 1136 ft^3 ≥ 2000 ppm boron conc. water	Table 15.4.1-1 #18 Table 15.4.1-2 #6	CL-1A step 2.1.2	--
15.3.3.A.1.c	A reactor shall not be made critical unless 2 SI pumps are operable	15.4.5	CL-1A step 2.1.3	--
15.3.3.A.1.d	A reactor shall not be made critical unless 2 RHR pumps are operable	15.4.5	CL-1A step 2.1.4, CL-1D step 3.17	--
15.3.3.A.1.e	A reactor shall not be made critical unless 2 RHR heat exchangers are operable	15.4.5	CL-1A step 2.1.5 CL-1D step 3.17	--
15.3.3.A.1.f	A reactor shall not be made critical unless isolation valves of the high head SI system are open	15.4.5	CL-1D step 3.16.1	--
15.3.3.A.1.g	A reactor shall not be made critical unless all valves, interlocks, and piping associated with the above systems are operable	15.4.5	CL-1A step 2.1.6 CL-1D step 3.16.1, 3.17	--
15.3.3.A.1.h	A reactor shall not be made critical unless AC power source removed from MOV-841A & B with valves open at > 1000 psig	15.4.5	OP-1A step 4.14.6, CL-1D step 3.16.1	--
15.3.3.B.1.a	A reactor shall not be made critical unless the spray additive tank has > 2675 gal of 30% NaOH solution	Table 15.4.1-2 #5 15.4.5	CL-1A step 2.2.1 CL-1D step 2.18, 3.18	--
15.3.3.B.1.b	A reactor shall not be made critical unless 2 containment spray pumps are operable	15.4.5	CL-1A step 2.2.3 CL-1D step 2.19, 3.19	--
15.3.3.B.1.c	A reactor shall not be made critical unless 4 accident fan cooler units are operable	15.4.5	CL-1A step 2.2.4 CL-1D step 2.20, 3.20, TS-33 containment accident recirculation fan cooler monthly test	--
15.3.3.B.1.d	A reactor shall not be made critical unless all valves and piping associated with the above systems and required to function are operable	15.4.5	CL-1D step 2.21, 3.21	--
15.3.3.C.1.a Single unit	One reactor shall not be made critical unless 2 component cooling pumps assigned to that unit are operable	--	CL-1A step 10.1.1, CL-1D step 1.6, 2.22, 3.22	--
15.3.3.C.1.b Single unit	One reactor shall not be made critical unless either the CCW heat exchanger associated with the Unit together with 1 of the shared spare heat exchangers are operable or 2 shared heat exchangers are operable	--	CL-1A step 10.1.2, CL-1D step 1.6, 2.22, 3.22	--
15.3.3.C.1.c Single unit	One reactor shall not be made critical unless all valves, interlocks and piping associated with the above components,	--	CL-1A step 10.1.3 CL-1D step 1.6, 2.22, 3.22	--

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
	and required for the functioning of the system during accident conditions are operable			
15.3.3.C.1.a Two unit operation	Both reactors shall not be made critical unless 3 component cooling pumps are operable	--	CL-1A step 9.1.1 CL-1D step 1.6, 2.22, 3.22	--
15.3.3.C.1.b Two unit operation	Both reactors shall not be made critical unless 3 component cooling heat exchangers are operable	--	CL-1A step 9.1.2 CL-1D step 1.6, 2.22, 3.22	--
15.3.3.C.1.c Two unit operation	Both reactors shall not be made critical unless all valves, interlocks and piping associated with the above components, and required for the functioning of the system during accident conditions are operable	--	CL-1A step 9.1.3 CL-1D step 1.6, 2.22, 3.22	--
15.3.3.D.1.a	Neither reactor shall be made or maintained critical unless 4 service water pumps are operable, 2 from each train	Table 15.4.1-2 #15	CL-1A step 2.3.1, RMP 29F step 4.1.2, RMP 23A step 2.4.5	
15.3.3.D.1.b	Neither reactor shall be made or maintained critical unless all valves, interlocks and piping associated with the above components, and required for the functioning of the system during accident conditions are operable	Table 15.4.1-2 #15	CL-1D step 4.21, CL-1A step 2.3.2	--
15.3.4.A.1	When the reactor coolant is heated above 350°F the reactor shall not be taken critical unless ≥ 8 main steam safety valves are available	Table 15.4.1-2 #12	CL-1A step 3.1 CL-1D step 3.24	--
15.3.4.A.2.a	Two Unit Operation - When the reactor coolant is heated above 350°F the reactor shall not be taken critical unless all 4 AFW pumps with their associate flow paths and essential instrumentation are operable	15.4.8	CL-1A step 9.2, CL-1D steps 3.25, 4.23	
15.3.4.A.2.b	Single Unit Operation - When the reactor coolant is heated above 350°F the reactor shall not be taken critical unless both motor driven and the turbine driven AFW pumps with their associate flow paths and essential instrumentation are operable	15.4.8	CL-1A step 10.2, CL-1D steps 3.25, 4.23	
15.3.4.A.3	When the reactor coolant is heated above 350°F the reactor shall not be taken critical unless $\geq 13,000$ gallons of water per operating unit in the CSTs and Lake water available via the SW system	Table 15.4.1-1#24 Table 15.4.1-2#15	CL-1A step 3.2, CL-1D step 3.26, 4.24 OI-62 A/B step 2.3	--
15.3.4.A.4	When the reactor coolant is heated above 350°F the reactor shall not be taken critical unless system valves and piping required to function during accident conditions directly associated with the above components are operable	Table 15.4.1-1#24 Table 15.4.1-2#15	CL-1A step 3.4, CL-1D step 3.26, 4.24	--
15.3.4.A.5	When the reactor coolant is heated above 350°F the reactor shall not be taken critical unless both atmospheric dump lines are operable	Table 15.4.1-2 #28	CL-1A step 3.5, CL-1D step 2.42	--
15.3.4.B	The Iodine-131 activity on the secondary side of the steam generator shall not exceed 1.2 $\mu\text{Ci/cc}$	Table 15.4.1-2 #8	CL-1A step 3.6, CL-1D step 3.27, 4.25	--
15.3.4.D	The main steam stop valves (MS-2017 & 2018) and the non-return check valves (MS-2017A & 2018A) shall be operable	15.4.7	CL-1A step 3.4, CL-1D step 2.43	--
15.3.4.E	The crossover steam dump system is operable	Table 15.4.1-2 #29	OP-1C step 2.1.4, OP-2A step 2.1.2, TS-41 (Unit 1) & TS-42 (Unit 2) crossover steam dump quarterly	--

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
			test	
15.3.4.F	During power operation, at least one of the turbine overspeed protection systems that trip the turbine stop valves or shut the turbine governor valves shall be operable.	Table 15.4.1-1#42	TS-3/4	--
15.3.4.G	Turbine Stop and Governor Valve operability	Table 15.4.1-2 #18	--	--
15.3.5.A	ESF initiation instrument setting limits per Table 15.3.5-1	--	STPT 2.0	--
15.3.5.B	Reactor Trip, Safeguards Actuation, Containment Isolation LCOs and Actions Tables 15.3.5-2 thru 4	--	CL-1A step 5.6.7	--
15.3.5.C	Reactor Trip, Safeguards Actuation, Containment Isolation Actions Tables 15.3.5-2 thru 4	--	CL-1A step 5.6.7	--
15.3.5.D	Post Accident Monitoring LCOs & Actions Table 15.3.5-5	--		
15.3.6.A.1	Containment Integrity shall be maintained when: (1) a core is installed unless reactor is in the CSD condition (2) the reactor vessel head is removed unless the reactor is in the refueling condition.	--	CL-1D step 2.24	Reference in CL-1D should be 15.3.6.A.1 rather than 15.6.3.A.a
15.3.6.A.1.b	Containment Isolation valves (except Purge) - each containment penetration must be operable to satisfy containment integrity	Table 15.4.1-2#13, 15.4.2.B.2	CL-1D step 2.24, OM 3.26 step 3.6 use of dedicated operator as substitute for remote operation of containment isolation valves	CL-1D step 2.24 implies compliance with 15.3.6.A.1.b
15.3.6.A.1.c	Containment Purge Supply & Exhaust valves shall be locked closed unless the reactor is in CSD or Refuel condition	Table 15.4.1-2 #23	CL-1D step 2.24, OM 3.26 step 4.2.3 use of dedicated operator as substitute for remote operation of containment isolation valves	CL-1D step 2.24 implies compliance with 15.3.6.A.1.c
15.3.6.A.1.d	Both containment airlocks shall be operable	15.4.4.I	CL-1D step 2.24, OM 3.26 step 4.2.3 use of dedicated operator as substitute for remote operation of containment isolation	CL-1D step 2.24 implies compliance with 15.3.6.A.1.d
15.3.6.B.1	Containment Internal Pressure range from -2.0 psig to +3 psig	Table 15.4.1-1(27)	CL-1A step 7.2 CL-1D step 4.28	Safeguards Shift Log (PBF-2036) acceptance criteria -1 to +2 psig
15.3.6.C	Positive reactivity changes shall not be made by rod drive motion when containment integrity is not intact	--	OP-1A step 2.1.5	--
15.3.6.D	Positive reactivity changes shall not be made by boron dilution when containment integrity is not intact unless boron concentration is maintained > 1800 ppm	--	OP-1A step 2.5.2	--
15.3.6.E	Containment structural integrity shall be maintained in accordance with the surveillance criteria I Containment Leakage Testing Program and 15.4.4.II	15.4.4.I, 15.4.4.II	--	--
15.3.7.A.1.a	Neither one or both of the reactors shall be made critical unless ≥ 2 345KV transmission lines are in service	--	CL-1A steps 9.4.1, 10.4.1a CL-1D step 4.29	CL-1D step 4.29 merely references CL-1A
15.3.7.A.1.b	Neither one or both of the reactors shall be made critical unless the 345/13.8 KV and the 13.8/4.16 KV station auxiliary transformers for the unit	--	CL-1A steps 9.4.2, 10.4.1b	--
15.3.7.A.1.c	Neither one or both of the reactors shall be made critical unless 4160 Volt unit supply busses A03 & A04 for the unit are energized from normal supply	--	CL-1A steps 9.4.3, 10.4.1c	--
15.3.7.A.1.d	Neither one or both of the reactors shall be made critical unless both unit's B03/B04 bus tie breakers are open w/	--	CL-1A steps 9.4.4, 10.4.1d	--

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
	control removed			
15.3.7.A.1.e	Neither one or both of the reactors shall be made critical unless 11,000 gal in each tank being relied upon to supply any operable emergency DG(s)	Table 15.4.1-2 #17	CL-1A steps 9.4.6, 10.4.1f	--
15.3.7.A.1.f	Neither one or both of the reactors shall be made critical unless 4 of 5 safety-related station batteries and all 4 main DC distribution systems operable	15.4.6.B	CL-1A steps 9.4.7, 10.4.1g	--
15.3.7.A.1.g	Neither one or both of the reactors shall be made critical unless 4 battery charges operable w/ one carrying load on each main DC bus D01, D02, D03 & D04	15.4.6.B	CL-1A steps 9.4.8, 10.4.1h	--
15.3.7.A.1.h	Neither one or both of the reactors shall be made critical unless 120 VAC vital instrument busses Y01, Y02, Y03, Y04, Y101, Y102, Y103, and Y104 are energized from a safety related inverter	Table 15.4.1-2 #26	CL-1A steps 9.4.9, 10.4.1i	--
15.3.7.A.1.i	For both of the reactors to be made critical normal and standby emergency power to all 4160/480 Volt safeguards busses shall be operable and energized from their normal supply	--	CL-1A step 9.4.3	--
15.3.7.A.1.j	For Unit 1 to be made critical normal and standby emergency power to the 4160/480 Volt safeguards busses Unit 1 A05/B03, Unit 1 A06/B04 and Unit 2 A06/B04 shall be operable and energized from their normal supply	--	CL-1A 10.4.1c	--
15.3.7.A.1.k	For Unit 2 to be made critical normal and standby emergency power to the 4160/480 Volt safeguards busses Unit 2 A05/B03, Unit 2 A06/B04 and Unit 1 A05/B03 shall be operable and energized from their normal supply	--	CL-1A 10.4.1c	--
15.3.8.1	During refueling operations the equipment hatch shall be closed and the personnel locks shall be capable of being closed. A temporary door on the outside of the personnel lock shall be in place whenever both doors are open.	--	RP-1B step 3.6 (partial), RP-1A Att A,B,C	--
15.3.8.2	During refueling operations rad levels in fuel handling areas and the containment and spent fuel pool shall be continuously monitored	Table 15.4.1-1#36	RP-1A step 3.1	--
15.3.8.3	During refueling operations subcritical neutron flux shall be continuously monitored by at least 2 neutron monitors, each with continuous visual indication in the control room and one with audible indication in the containment whenever core geometry is being changed. When not being changed, one monitor shall be in service	--	RP-1A Att A, B (Audible) RP-1C step 4.2, 4.8, 4.9	--
15.3.8.4	During refueling operations at least 1 RHR loop in operation	Table 15.4.1-1#39	RP-1A Att A, B	--
15.3.8.5	During refueling operations during head removal and loading of unloading core, ≥ 1800 ppm boron in the primary coolant system	Table 15.4.1-2 #2	REI-19 RP-1A steps 3.11, 4.7 RP-1C step 4.16	--
15.3.8.6	During refueling operations direct communication between control room and containment operating floor when core	--	RP-1A Att A	--

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
	geometry changes are taking place			
15.3.B.7	During refueling operations Containment purge and exhaust shall be operable and verified operable within 4 days prior to and once per 7 days during refueling operations (manual initiation & high rad initiation)	--	RP-1C step 3.1.2, 4.2, RMSASRB CI RE-212, RP-1B step 3.5	--
15.3.10.A.1	When the reactor is critical, the shutdown banks shall be fully withdrawn	--	OP-1B step 5.4	--
15.3.10.A.2	When the reactor is critical, the control banks shall be inserted no further than shown on Fig. 15.3.10-1	--	ARB C04-1A1-8 to 11, Operator response	--
15.3.10.A.3	Shutdown margin shall exceed value shown on Fig. 15.3.10-2 from 350°F to full power	--	CL-1D step 3.30, OP-3B step 2.8, OP-4A step 2.1.1	--
15.3.10.A.4	Shutdown margin of at least 1% $\Delta k/k$ when temperature is < 350°F	--	CL-1D step 1.5, 2.11	--
15.3.10.A.5	During approach to criticality, the critical rod position shall not be lower than the insertion limit for 0 power	--	CL-1D step 4.35 OP-1B step 3.3	--
15.3.10.B.1.a	Hot channel factor limits	--	RESP 6.1 step 6.1.1 references 15.3.10.B.1.a & b, REI 13.0 step 3.2c references action statements of 15.3.10.B.1.	--
15.3.10.B.1.b	Power distribution maps using incores confirm hot channel factor limits - total peaking factor & enthalpy rise hot channel factor - prior to 90% and monthly after	--	RESP 5.2 refers to RESP 6.1 for performance of map then RESP refers to REI 6.1 for computer analysis. Acceptance criteria are in RESP 6.1 step 6.1.1	--
15.3.10.B.2.a	Axial flux difference shall be maintained within allowable defined by Fig. 15.3.10-4	--	RESP 1.3 gathers data, directs the analysis, and establishes axial offset constants and directs the changing of these constants per ICP-10.33 REI 12.3 Delta Flux Control step 4.4 references Fig. 15.3.10-4	Control Room Shift Logs (PBF-2034 & 2035) record Δp and refers to 15.3.10.B.2.a for acceptance criteria
15.3.10.B.2.d	Alarms shall normally be used to indicate non-conformance with AFD requirements	--	REI 12.3 Delta Flux Control step 4.5 references 15.3.10.B.2.d and provides monitoring method with the PPCS alarms out of service in step 5.4	--
15.3.10.B.2.e	AFD shall be considered to be outside limits when at least 2 excor channels so indicate	--	AOP-6B note step 6	--
15.3.10.B.3	Quadrant power tilt $\leq 2\%$	--	AOP-6B step 6, REI 13.0 guides operators in response to tilt alarm	--
15.3.10.B.3.d	quadrant power tilt alarms and alternative calculational methods	--	REI 13.0 step 4.1 provides operator actions for alarm out of service (including alternate calcs.)	--
15.3.10.C.1.a	An RCCA shall be considered inoperable if the RCCA does not drop upon removal of stationary gripper coil voltage	Table 15.4.1-2 #9	AOP-6B Att D references these TS sections	--
15.3.10.C.1.b	An RCCA shall be considered inoperable if the RCCA does not step properly	Table 15.4.1-2 #10	AOP-6B Att D references these TS sections	--
15.3.10.C.1.c	An RCCA shall be considered inoperable if the bank demand position is greater than 215 or ≤ 30 steps with RPI showing 24 steps misalignment with demand	Table 15.4.1-2 #10	AOP-6B Att D references these TS sections	--
15.3.10.C.1.d	An RCCA shall be considered inoperable if the demand position is between 215 and 30 steps and RPI shows	Table 15.4.1-2 #10	AOP-6B Att D references these TS sections	--

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
	misalignment of 12 steps			
15.3.10.C.3	No more than 1 inoperable RCA is permitted during sustained power operations	Table 15.4.1-2 #10	AOP-6B Att D references these TS sections	--
15.3.10.D.3.a	With failed RPI, shiftly position check of misaligned or dropped rod between 10 and 100% rated power	T15.4.1-1 #19	AOP-6B step 12, 27, RESP 1.2, REI 7.0 Rod Position Determination uses flux mapping to determine rod position, RESP 5.1 step 5.3 Caution Statement refers to this requirement	--
15.3.10.E.1	Rod drop time at operating temperature and flow < 2.2 seconds	Table 15.4.1-2 #9a	RESP 3.1 step 6.1.4 references this acceptance criterion	--
15.3.11.A	minimum of 2 thimbles per quadrant of incore detectors operable for recalibration of excores	--	RESP 1.3 step 5.0 notes that 2 thimbles per quadrant need to be operable for calibration of excores	--
15.3.11.B	Power limited to 90% if calibration requirements for axial offset are not met	--	RESP 1.3 step 5.0 notes this limit	--
15.3.12.1	Control room emergency filtration system shall be operable during power operation and refueling operation of either unit	15.4.11	CL-1D step 2.25, RMSASRB CI RE-101, RMSASRB CI RE-235	--
15.3.12.2.a	Filter, adsorber in-place test acceptance criteria	15.4.11	HPIP 11.54	--
15.3.12.2.b	Adsorber lab test acceptance criteria	15.4.11	HPIP 11.54	Lab test results not recorded in procedure
15.3.12.2.c	Fan test acceptance criteria	15.4.11	HPIP 11.54	--
15.3.13.1	Shock suppressors (snubbers) shall be operable during all modes except CSD and refueling	15.4.13.1 & 15.4.13.2	CL-1D steps 2.26, 3.28, 4.36	--
15.3.14.A.1.a	Fire suppression water system, fire main loop water supply, both fire pumps shall be operable	15.4.15.A.1	TS-70, TS-71, TS-73, TS-74, OM-3.27 PURPOSE section - enhanced description of fire detection and protection systems	--
15.3.14.A.2.a	Fire suppression water system, water sprinkler systems listed in Table 15.3.14-1 shall be operable	15.4.15.A.2	TS-76, RMP 37 step 2.4 initiates this LCO's Action Statement	--
15.3.14.A.3.a	Fire suppression water system, fire hose stations in areas listed in Table 15.3.14-1 shall be operable	15.4.15.A.3	TS-75, TS-79	--
15.3.14.A.4.a	Halon gaseous suppression systems listed in Table 15.3.14-1 shall be operable	15.4.15.B.1.a	TS-78 semiannual HALON 1301 fire suppression system surveillance test	--
15.3.14.B.1.a	Fire detection system components for each area listed in Table 15.3.14-1 shall be operable	15.4.15.B.1	TS-77, TS-78	--
15.3.14.C.1.a	All fire barrier penetration seals protecting safety related areas shall be operable	15.4.15.C.1	OM 3.27 step 1.3 PURPOSE section - describe compensatory measures	--
15.3.15.A.1	The overpressure mitigating system shall be operable whenever the RCS is not open to the atmosphere and the temperature is less than the minimum pressurization temperature for the inservice pressure test	T15.4.1-1 #32	CL-1D steps 1.3, 2.3, 3.4, CP-1A step 3.2.3 LTOP mode set per CL-4C.	CL-1D steps 1.3, 2.3, 3.4 merely state that PORVs operable and Block Valves are open... no mention of LTOP Mode, no verification of overprotection system operability
15.3.15.A.1.a	Both PORVs operable at a setpoint of ≤ 425 psig	T15.4.1-1 #32, #34	CL-1D steps 1.3, 2.3, 3.4	--
15.3.15.A.1.b	Both PORVs block valves are open	T15.4.1-1 #32, #33 Table 15.4.1-2 #21b	CL-1D steps 1.3, 2.3, 3.4	--
15.3.15.B.1	When the RCS is not open and the temperature is $\leq 275^{\circ}\text{F}$	T15.4.1-1 #32	CL-1D steps 1.8, 2.17 & CAUTION statement	--

TS LCO	Description	TS Surveillance Cross Reference	Implementing Procedure	Comments
	no more than 1 high pressure SI pump shall be operable			
15.3.15.B.2.a	A reactor coolant pump shall not be started when the temperature is less than the minimum temperature for the inservice pressure test unless there is a pressure absorbing volume in the pressurizer or SG tubes	T15.4.1-1 #32	OP-4B step 3.18	--
15.3.15.B.2.b	A reactor coolant pump shall not be started when the temperature is less than the minimum temperature for the inservice pressure test unless secondary water temperature is less than 50°F above the temperature of the RCS	T15.4.1-1 #32	OP-4B step 3.18	--
15.3.16.A	Each reactor coolant system pressure isolation valve listed in Table 15.3.15-1 (SI-845A-F, SI-853A-D, SI-867A & B) shall be functional as a pressure isolation device. Valve leakages shall not exceed the amounts indicated	15.4.16	TS-30 (Unit 1) & TS-31 (Unit 2) test these valves, CL-1D step 2.27	--

Item #	TABLE 15.4.1-1 Channel Description 1	Channel Description 2	TS LCO cross reference	Check	Calibrate	Test	Comments
1	Nuclear Power Range	Nuclear Power Range	T 15.3.5-2#2	--	R: ICP-4.26 (power supplies, summing & level amps, isolation amps, bistable drivers, recorders, channel & Δp meters)	--	ICP-4.27, rev 10, step 2.1.1 - erroneous reference to Table 15.4.1-1 Item 1.
1	Nuclear Power Range	Heat Balance	--	S: OM-4.2.5-Control Room Shift Log (PBF-2034 & 2035) heat balance results and comparison to power range	D: Shift Logs direct adjustment as needed per PBF-2034 & 2035	--	--
1	Nuclear Power Range	Signal to delta T	--	--	--	Q: ICP-2.003, ICP-2.007	--
1	Nuclear Power Range	Compare to Incore	15.3.10	M: RESP-6.1 (flux map followed by check and calibration of power range), ICP-2.008 axial offset calibration	--	--	--
2	Nuclear Intermediate Range	Nuclear Intermediate Range	T 15.3.5-2#3	--	R: ICP-4.25 (calibration), ICP-4.38 (compensation voltage), ICP-4.27 (SR & IR auxiliary channels - comparator, rate, audio count rate))	--	--
2	Nuclear Intermediate Range	When not blocked	--	S: OM-4.2.5-Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	--	--	--
2	Nuclear Intermediate Range	logarithmic level, bistable action	--	--	--	P: ICP-2.009, ICP-2.015	--
3	Nuclear Source Range	Nuclear Source Range	T 15.3.5-2#4	--	R: ICP-4.24 (calibration and bistable NC-103 & 104 adjustments), ICP-2.010 (bistable NC-101), ICP-4.27 (SR & IR auxiliary channels - comparator, rate, audio count rate))	--	--
3	Nuclear Source Range	When not blocked	--	S: OM-4.2.5-Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	--	--	--
3	Nuclear Source Range	Bistable action	--	--	--	P: ICP-2.010, ICP-2.015	--
4	Reactor Coolant Temperature	Reactor Coolant Temperature	T15.3.5-5 #18, #19	S: OM-4.2.5-Control Room Shift Log (PBF-2034 & 2035) T_{avg} and ΔT recorded and Control Room Cold Shutdown Log (PBF-2038 & 2039) cold leg temperature	R: ICP-4.1A (T_H & T_C), ICP-4.1C (ΔT_{sp1}), ICP-4.1D (ΔT_{sp2} & $f(T_{avg})$)	--	--
4	Reactor Coolant Temperature	Overtemperature delta T	T15.3.5-2#5	--	--	Q: ICP-02.001 Bistable tests 1ICP-02.001BL-1, step 7.22.30 OT delta T Rod Stop and Over	--

Item #	TABLE 15.4.1-1 Channel Description 1	Channel Description 2	TS LCO cross reference	Check	Calibrate	Test	Comments
						Temp Trip, ICP-02-003, ICP-02-017, ICP-02-020	
4	Reactor Coolant Temperature	Overpower delta T	T15.3.5-2#6	--	--	Q- ICP-02-001 Bistable tests, 1ICP-02-001BL-1, step 7.22.32 OP delta T Rod Stop and Over Power Trip, ICP-02-017, ICP-02-020	--
5	Reactor Coolant Flow	Reactor Coolant Flow	15.3.1.G	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039) loop flows recorded	R: ICP-4.1K (rack mounted equipment), ICP-04-002-1 (flow transmitters)	--	RESP-6.2 & RESP-6.3 perform precision RCS flow rate measurements (results used for PPCS monitoring)
5	Reactor Coolant Flow	Analog and single loop loss of flow logic	T15.3.5-2 #10a	--	--	Q - ICP-02-001, ICP-02-003, ICP-02-017	--
5	Reactor Coolant Flow	Logic for 2 loop loss of flow	T15.3.5-2 #10b	--	--	R - ICP-02-020	--
6	Pressurizer Water Level	--	T15.3.5-2 #9 T15.3.5-5 #20	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039) pressurizer level recorded	R: ICP-4.1J (rack mounted equipment), ICP-04-002-3 (transmitter cold calibration)	Q - ICP-02-001, ICP-02-003, ICP-02-017, ICP-02-020	--
7	Pressurizer Pressure	--	T15.3.5-1 #3 T15.3.5-2 #E.9 T15.3.5-3 #1d T15.3.5-5 #16, #17	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039) pressurizer pressure recorded	R: ICP-4.1H (rack mounted equipment), ICP-04-003-1 (transmitter calibration)	Q- ICP-02-001 Bistable tests, 1ICP-02-001BL-1, step 7.23.1 high pressure trip, low pressure trip, SI, SI unblock and SI unblock enable, ICP-02-003, ICP-02-005, ICP-02-017, ICP-02-019, ICP-02-020	--
8	Steam Generator Level	--	T15.3.5-1 #7 T15.3.5-2 #13 T15.3.5-3 #3a, 3b(ii) T15.3.5-4 #3a T15.3.5-5 #25, #26	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	R: ICP-4.1I (rack mounted equipment), ICP-04-003-2 (transmitter calibration)	Q- ICP-02-001, ICP-02-003, ICP-02-005, ICP-02-017, ICP-02-019, ICP-02-020	--
9	Steam Generator Flow Mismatch	--	T15.3.5-2 #12	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035)	R: ICP-4.1F (steam flow), ICP-4.1G (feed flow), ICP-04-006-1 (steam flow transmitters), ICP-04-007-1 (feed flow transmitters)	Q- ICP-02-001, ICP-02-003, ICP-02-017, ICP-02-019, ICP-02-020	--
10	Steam Generator Pressure	--	T15.3.5-1 #4 T15.3.5-3 #1c T15.3.5-5	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	R: ICP-4.1E (steam pressure), ICP-04-004-2 (steam pressure transmitters)	Q- ICP-02-001, ICP-02-005, ICP-02-019, ICP-02-020	--

Item #	TABLE 15.4.1-1 Channel Description 1	Channel Description 2	TS LCO cross reference	Check	Calibrate	Test	Comments
			#27				
11	4KV Bus Undervoltage	AFW Pump actuation	T15.3.5-1 #8 T15.3.5-3 #3b(i)	--	R: 1RMP-9056-3 and 2 RMP-9056-3 Protective relay calibrations	M - RMP-9075	--
11	4KV Bus Undervoltage	Reactor Protection actuation	T15.3.5-2 #14a	--	R: 1RMP-9056-3 and 2 RMP-9056-3 Protective relay calibrations	M - ICP-02.003, ICP-02.017, ICP-02.017	--
12	4KV Bus Underfrequency	to Reactor Coolant Pump Trip	T15.3.5-2 #14b	--	R: 1RMP-9056-3 and 2 RMP-9056-3 Protective relay calibrations	--	--
13	Safeguards Bus Voltage	Loss of 4KV	T15.3.5-3 #4a(ii)	S: OM-4.2.5- Safeguards Shift Log (PBF-2136)	R: 1RMP-9056-1, 2 & 3 and 2 RMP-9056-1, 2 & 3 Protective relay calibrations	M: RMP-9071 (degraded and loss of voltage monthly)	RMP-9071, rev 2, step 2.1 should reference Table 15.4.1-1 item 13 not items 36, 37a and 37b
13	Safeguards Bus Voltage	Degraded 4KV	T15.3.5-1 #9 T15.3.5-3 #4a(i)	S: OM-4.2.5- Safeguards Shift Log (PBF-2136)	R: 1RMP-9056-1, 2 & 3 and 2 RMP-9056-1, 2 & 3 Protective relay calibrations	M: RMP-9071 (degraded and loss of voltage monthly)	RMP-9071, rev 2, step 2.1 should reference Table 15.4.1-1 item 13 not items 36, 37a and 37b
13	Safeguards Bus Voltage	Loss of 480V	T15.3.5-1 #10b T15.3.5-3 #4b(i)	S: OM-4.2.5- Safeguards Shift Log (PBF-2136)	R: 1RMP-9056-4 & 5 and 2RMP-9056-4 & 5 Protective relay calibrations	M: RMP-9071 (degraded and loss of voltage monthly)	RMP-9071, rev 2, step 2.1 should reference Table 15.4.1-1 item 13 not items 36, 37a and 37b
14	120 VAC Instrument Buses	--	15.3.7.B.1 j	W: Turb Bldg Shift Log (PBF-2032 & 2033), Turb Bldg CSD Log (PBF-2077 & 2078), Aux Bldg Shift Log (PBF-2031)- inverter supplying load	--	--	--
15	Reactor Trip Signal from Turbine	Turbine Autostop	T15.3.5-2 #11a	--	--	M: ICP-02.003	--
15	Reactor Trip Signal from Turbine	Turbine Stop Valve	T15.3.5-2 #11b	--	--	M: ICP-02.003	--
16	Reactor Trip Signal from SI	--	T15.3.5-2 #15	--	--	M: ICP-02.003A-1 step 7.19	--
17	Feedwater Isolation on SI	MFP Trip on Safety Injection	T15.3.5-4 #3b	--	--	R: ORT-3A, ORT-3B SI Actuation with Loss of Engineered Safeguards AC tests MFP breaker trip	--
17	Feedwater Isolation on SI	MFRV Shutting Safety Injection	T15.3.5-4 #3b	--	--	R: ORT-3, ORT-3A, ORT-3B SI Actuation with Loss of Engineered Safeguards AC tests MFRV & bypass closure	--
18	Accumulator Level and Pressure	--	15.3.3.A	S: OM-4.2.5- Safeguards Shift Log (PBF-2136)	R: ICP-04.004-3 (SI accumulator pressure transmitters), ICP-4.11 (SI accumulator level transmitters), ICP-4.13 (SI accumulator level & pressure loops)	--	--

Item #	Channel Description 1	Channel Description 2	TS LCO cross reference	Check	Calibrate	Test	Comments
19	Analog Rod Position	Analog Rod Position	15.3.10.D	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035)	R: ICP-4.29 analog rod position calibration	--	--
19	Analog Rod Position	with static counters	15.3.10.D	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035)	--	--	--
19	Analog Rod Position	Monitoring by on-line computer	15.3.10.D	Logged if in-op on Control Room Shift Log (PBF-2034 & 2035)	--	--	--
20	Auxiliary Feedwater Flow	--	T15.3.5.5 #6	flowpath operable prior to power Ops following CSD > 30 days; IT-290A (Unit 1) & IT-295A (Unit 2) verifies auxiliary feedwater flow paths to each steam generator.	R: ICP-04.006.3 (Unit 2 auxiliary feed flow transmitter and suction pressure transmitter & indicator), ICP-04.003.5 (Unit 1 auxiliary feed flow transmitters), ICP-04.032.1 (auxiliary feed flow and suction pressure electronic calibration)	--	--
21	Boric Acid Control System	--	15.3.2	--	R: ICP-4.14 (boric acid flow control system)	--	--
22	Boric Acid Tank Level	--	T15.3.2.1	D: OM-4.2.5- Safeguards Shift Log (PBF-2136)	R: ICP-4.15 (BA tank level transmitters), ICP-4.16 BA (level channels)	--	--
23	Charging Flow	--	15.3.2	--	R: ICP-04.003.4 (charging flow transmitter and indicator), ICP-04.032.1 (charging flow electronic calibration)	--	--
24	Condensate Storage Tank Level	--	T15.3.5.5 #24	S: OM-4.2.5- Safeguards Shift Log (PBF-2136)	R: ICP-13.009.1 (CST level transmitters calibration), ICP-13.009.2 (CST level loop calibration)	--	--
25	Containment High Range Radiation	--	T15.3.5.5 #7	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	R: ICP-04.036 (containment high range rad monitoring system), ICP-04.036.1 & 2 (for units 1 & 2), ICP-13.4 Spec 200 internals calibration	--	--
26	Containment Hydrogen Monitor	Containment Hydrogen Monitor	T15.3.5.5 #10	D: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	--	--	--
26	Containment Hydrogen Monitor	Gas calibration	T15.3.5.5 #10	--	Q: ICP-13.2 (gas calibration), ICP-13.4 Spec 200 internals calibration	--	--
26	Containment Hydrogen Monitor	Electronic calibration	T15.3.5.5 #10	--	R: ICP-4.34 (electronic calibration)	--	--
27	Containment Pressure	--	T15.3.5.1 #1,2 T15.3.5.3 #1b,2b T15.3.5.5	S: Safeguards Shift Log (PBF-2036) records containment pressure, criteria: -1 to +2 psig	R: ICP-4.11L (rack mounted electronics), ICP-04.006.2 (containment low, medium, and wide range pressure transmitters)	Q: ICP-02.001, ICP-02.005, ICP-02.019, ICP-02.020	--

Item #	TABLE 15.4.1-1 Channel Description 1	Channel Description 2	TS LCO cross reference	Check	Calibrate	Test	Comments
28	Containment Water Level	--	#21,22,23 T15.3.5-5 #8,9	M: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	R: ICP-4.2.2 (level transmitter), ICP-13.4 Spec 200 internal calibration	--	--
29	Emergency Plan Radiation Survey Instruments	--	--	Q: EPMP-1.1 Routine check, maintenance, calibration and inventory of HP E-Plan equipment, Form 1.1b specifies the number and types of survey instruments (quarterly inventory and source response tests), EPMP-1.2 E-Plan equipment routine check, maintenance, and calibration instructions invokes HPCAL-1.3 for response checks	R: EPMP-1.1 Routine check, maintenance, calibration and inventory of HP E-Plan equipment, Form 1.1b specifies the number and types of survey instruments (quarterly inventory and source response tests), EPMP-1.2 E-Plan equipment routine check, maintenance, and calibration instructions invokes HPCAL-1.1 for calibrations of portable survey instruments (step 6.1.1.d states schedule is established using CHAMPS)	Q: EPMP-1.1 Routine check, maintenance, calibration and inventory of HP E-Plan equipment, Form 1.1b specifies the number and types of survey instruments (quarterly inventory and source response tests), EPMP-1.2 E-Plan equipment routine check, maintenance, and calibration instructions invokes HPCAL-1.3 for response checks	Scheduling of individual instruments is not controlled by official means (not in CHAMPS, no PBF. HP uses self generated form to keep track of survey instruments in use and their due dates) Don LeClair said HP is removing all instruments from CHAMPS and have procedure changes generated. E-Plan rad monitor cals and response tests are/will be fully controlled by EPMP-1.1 Form 1.1b HPCAL-1.1 should reference Table 15.4.1-1 Item 29 NOT Item 27 EPMP-1.1 and 1.2 should reference Table 15.4.1-1 Item 29 NOT 30
30	Environmental Monitors	--	--	M: Monthly checks are no longer conducted. Quarterly checks are done under TS 15.7.7 via PBNP Environmental Manual	--	--	Monthly Environmental Monitor checks are no longer conducted. Testing is performed quarterly per Table 15.7.7-1. CR needs to be written to resolve Table 15.4.1-1 error (Environmental monitors should not appear in Table 15.4.1-1)
31	In-Core Thermocouples	--	T15.3.5-5 #13	M: RESP-6.1 (TC map printed at power, temperatures reviewed against acceptance criteria. check ≥ 2 TCs per quadrant operable)	R: RESP-3.1 (TC map printed during heatup, temperatures compared to T_{cold} check ≥ 2 TCs per quadrant operable) Note: calibration is to observe response to source	--	--
32	Overpressure	--	15.3.15	S: OM-4.2.5- Control Room Shift	R: ICP-04.004.6 (transmitter)	Channel functional when	--

Item #	TABLE 15.4.1-1 Channel Description 1	Channel Description 2	TS LCO cross reference	Check	Calibrate	Test	Comments
	Mitigating System			Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	calibrations)	required to be operable: ICP-2.16 Overpressure Mitigating System	
33	PORV Block Valve Position Indicator	--	15.3.1.A.5.a T15.3.5-5 #2	Q: IT-20 (functional check of Unit 1 position indication), IT-25 (functional check of Unit 2 position indication), IT-200 & 205 (performed during CSD-satisfies "check" requirement)	R: IT-200 (Unit 1 check rising stem indicator with control board open/closed position), IT-205 (Unit 2 ditto)	--	IT-200/205 are checks not calibrations
34	PORV Operability	--	15.3.1.A.5.a	--	R: ICP-4.1H (analog racks - pressurizer pressure), ICP-4.004-6 (LTOP transmitter calibrations)	Q: ICP-02.001, ICP-02.020	--
35	PORV Position Indicator	--	T15.3.5-5 #1	S: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	R: IT-200 (Unit 1 local % valve position indication compared to control board open/closed indication & "Not Shut" annunciator), IT-205 (Unit 2 local % valve position indication compared to control board open/closed indication & "Not Shut" annunciator)	R: IT-200 (Unit 1 local % valve position indication compared to control board open/closed indication & "Not Shut" annunciator), IT-205 (Unit 2 local % valve position indication compared to control board open/closed indication & "Not Shut" annunciator)	IT-200/205 are checks not calibrations
36	Radiation Monitoring System (RETS & TS checks) (non-RETS calcs)	--	T15.3.5-5 #13	D: OM-4.2.5- Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	R: ICP-13.001-1, 2, 3, 5 (RE-218 waste disposal system liquid, RE-220 SFP liquid, RE-223 waste distillate release liquid, RE-230 liquid retention pond discharge, RE-234 control room vent iodine, RE-234B RE-234 background, RE-235 control room vent noble gas, C-261 Aux Bldg exhaust, C-262 drumming area vent, RE-214 PAB exhaust ventilation gas, RE-221 drumming area vent gas, RE-224 gas stripper bldg exhaust, & RE-225 combined air ejector low range), IICP-13.001-1 (1RE-216 cont. fan cooler liquid, 1RE-219 S/G blowdown liquid, 1RE-229 service water outlet), IICP-13.001-2 (1RE-211 cont. air particulate, 1RE-211B RE-211 background, 1RE-212 cont. noble gas), IICP-13.001-3 (C-259 cont. purge exhaust), IICP-13.001-5 (1RE-215 condenser air ejector gas, 1RE-	M: TS-9 RE-101 & RE-235 functional check (control room vent alarms, dampers shift, fan start), HPIP-7.51 Monthly operational test of the radiation monitoring system (daughter procedures reference PBF-4006f-s)	HPIP-7.51 Tech Spec references are too general. Compared PBF 4006f thru s to SAR Tables 11.2-6A, 7A & 8. RE-237B (background for TSC iodine monitor) and 1(2)RE-302 (Rod drive room a monitor) not on forms. SAR change (FCR 97-010) in for elimination of 1(2)RE-302. CR needs to be written to disconnect RE-237B, abandon in-place, and remove from SAR

Item #	TABLE 15.4.1-1 Channel Description 1	Channel Description 2	TS LCO cross reference	Check	Calibrate	Test	Comments
					217 CCW water liquid)		
37	Reactor Vessel Fluid Level System	--	T15.3.5.5 #11,12	M: Control Room Shift Log (PBF-2034 & 2035) and Control Room Cold Shutdown Log (PBF-2038 & 2039)	R: IICP-04.003-8 (LT-447 & 477A calibration), ICP-04.023-1 (reactor vessel wide and narrow range level transmitter calibration) ICP-13.4 Spec 200 internals calibration	--	--
38	Refueling Water Storage Tank Level	--	T15.3.5.5 #15	--	R: ICP-4.19	--	--
39	Residual Heat Removal Pump Flow	--	--	--	R: ICP-4.19	--	--
40	Safety Valve Position Indicator	--	T15.3.5.5 #3	M: TS-32 Safety valve position verification, subcooling margin monitor check, containment purge valve position check	R: RMP-9054-1 & 2 each check PZR safety valve position indicators, RMP-9054-3 performs calibration	--	RMPs have no Tech Spec references
41	Subcooling Margin Monitor	--	T15.3.5.5 #4	M: TS-32 Safety valve position verification, subcooling margin monitor check, containment purge valve position check	R: ICP-13.4 Spec 200 internals calibration	--	--
42	Turbine Overspeed Trips	Independent Overspeed Protection System	15.3.4 F	--	R: ICP-04.028-1 (overspeed calibration and trip and alarm setpoints)	M: ICP-02.012	--
42	Turbine Overspeed Trips	Overspeed Block trip	15.3.4 F	--	R: ORT-4 (functional test) overspeeds turbine and records rpm where mechanical trip actuates - operators directed to contact Maintenance if trip is outside allowable rpm range.	M: OM4.2.5 Main Turbine Stop and Governor Valves with Turbine Trip Test (TS-3 & 4) tests the turbine trip block overspeed trip. Turbine Trip Test (TS-3A & 4A) tests the turbine trip block overspeed trip	No calibration procedure found
43	Volume Control Tank Level	--	--	--	R: ICP-4.18 (VCT level), ICP-04.003-3 (VCT level transmitters)	--	--
44	Reactor Protection System and Emergency Safety Feature Actuation System Logic	--	--	--	--	M: ICP-02.003, ICP-02.005	--
45	Reactor Trip System Interlocks	Intermediate Range Neutron Flux, P-6	15.2.3.2	--	R: --	R: ICP-02.009-1 (pre-startup, includes bistable sp adjustment)	--
45	Reactor Trip System Interlocks	Power Range Neutron Flux, P-8	15.2.3.2	--	R: --	R: ICP-02.015-1, ICP-02.014-1 (pre-startup, includes bistable sp adjustment)	--
45	Reactor Trip System Interlocks	Power Range Neutron Flux, P-9	15.2.3.2	--	R: --	R: ICP-02.015-1, ICP-02.014-1 (pre-startup, includes bistable sp adjustment)	--

Item #	TABLE 15.4.1-1 Channel Description 1	Channel Description 2	TS LCO cross reference	Check	Calibrate	Test	Comments
45	Reactor Trip System Interlocks	Power Range Neutron Flux, P-10	15.2.3.2	--	R--	R: ICP-02.014-1 (pre-startup, includes bistable sp adjustment)	--
45	Reactor Trip System Interlocks	1 st Stage Turbine Impulse Pressure, P-7	--	--	R: ICP-4.1J (rack mounted equipment to rod control & steam dump) ICP-04.010-1	R: ICP-02.015-1, ICP-02.020-1 (pre-startup, includes bistable sp adjustment)	--

ITEM #	TABLE 15.4.1-2 Description	Test	TS LCO cross reference	Frequency	Test Procedure	Comments
1	Reactor Coolant Samples	Gross Beta-gamma activity (excluding Tritium)	15.3.1.C	5/week	CAMP-101	--
1	Reactor Coolant Samples	Tritium activity	15.3.1.C	monthly	CAMP-101	--
1	Reactor Coolant Samples	Radiochemical E determination	15.3.1.C	semiannually	CAMP-406 (E bar determination)	--
1	Reactor Coolant Samples	Isotopic analysis for dose equivalent I-131 Concentration	15.3.1.C	every 2 weeks	CAMP-101	--
1	Reactor Coolant Samples	Isotopic analysis for Iodine including I-131, I-133, and I-135	15.3.1.C	OP-3A step 2.1.4 reactor coolant sample following 15% power change	CAMP-101	--
1	Reactor Coolant Samples	Chloride concentration	15.3.1.E	--	CAMP-101	--
1	Reactor Coolant Samples	Diss. Oxygen concentration	15.3.1.E	--	CAMP-101	--
1	Reactor Coolant Samples	Fluoride concentration	15.3.1.E	--	CAMP-101	--
2	Reactor Coolant Boron	Boron concentration	15.3.8.5	--	CAMP-101	--
3	Refueling Water Storage Tank Water Sample	Boron concentration	15.3.3.A.1.a	--	CAMP-101	--
4	Boric Acid Tanks	Boron concentration	15.3.2-1	--	CAMP-101	--
5	Spray Additive Tank	NaOH concentration	15.3.3.B.1.a	--	CAMP-100.1	Sample frequency not specified in CAMP-101
6	Accumulator	Boron concentration	15.3.3.A.1.b	--	CAMP-100.1	Sample frequency not specified in CAMP-101
7a	Spent Fuel Pit	Boron concentration	--	--	CAMP-101	--
7b	Spent Fuel Pit	Water level verification	--	--	OM-4.2.5-Aux Bldg Shift Log (PBF-2031), local indicator, 63 to 64 feet	--
8	Secondary Coolant	Gross Beta-gamma activity or gamma isotopic analysis	--	--	CAMP-101	--
8	Secondary Coolant	Iodine concentration	15.3.4.B	--	CAMP-101	--
9a	Control Rods	Rod drop times of all full-length rods	15.3.10.E	--	RESP-3.1 cold and hot rod drop tests	--
9b	Control Rods	Rodworth measurements	15.3.10	--	RESP-4.2 rod worth measurement following criticality	RESP-4.2 does not reference TS Table 15.4.1-2 item 9b

ITEM #	TABLE 15.4.1-2 Description	Test	TS LCO cross reference	Frequency	Test Procedure	Comments
10	Control Rod	Partial movement of all rods	15.3.10.C	--	OM-4.2.5-BI-Weekly Rod Exercise Test Unit 1 & 2 (TS-5 & 6) exercises control and shutdown rods	--
11	Pressurizer Safety Valves	Set point	15.3.1.A.4	--	RMP-9054-1 PZR safety valve removal and installation (removes, packages for shipping, & reinstalls valves)	valve setting done by outside vendor- vendor work travelers should contain as-found & as-left settings
12	Main Steam Safety Valves	Set point	15.3.4.A.1	--	RMP-55 Main steam safety valve removal (removes, packages for shipping, & reinstalls valves)	valve setting done by outside vendor- vendor work travelers should contain as-found & as-left settings
13	Containment Isolation Trip	Functioning	--	--	OM-4.2.5- ORT-3, ORT-3A, ORT-3B SI Actuation with Loss of Engineered Safeguards AC tests containment isolation response, HPIP-7.51.6 containment purge & vent on high rad	--
14	Refueling System Interlocks	Functioning	--	--	OM-4.2.5- ORT-15 Fuel Manipulator and Fuel Transfer System interlock tests	--
15	Service Water System	Functioning	15.3.3.D	--	OM-4.2.5- ORT-3, ORT-3A, ORT-3B SI Actuation with Loss of Engineered Safeguards AC tests service water system response	--
16	Primary System Leakage	Evaluate	15.3.1.D	--	OM-4.2.5-Control Room Shift Log Unit 1 & 2 (PBF-2034 & 2035) calculate and record leakage	PBF-2034 & 2035 do not specify leakage limit
17	Diesel Fuel Supply	Fuel inventory	15.3.7.A.1.e	--	OM-4.2.5-Safeguards Shift Log (PBF-2036) Diesel Day Tank levels A Tank (LI-3932) 60 - 89% B Tank (LI-3934) 60 - 89%, Turb Bldg Log (PBF-2032) Diesel Generators G01 & G02 Sump Tank fuel levels > 400 gal, Turb Bldg Log (2033) Diesel Generators G03 & G04 Day Tank levels (LIT-3992A/B) 86.5 - 100% Storage Tank Levels (LIT-3985A/B) 64 - 95%, Turb Bldg CSD Log (PBF-2077/2078) same as PBF-2032/2033	--
18	Turbine Stop and Governor Valves	Functioning	15.3.4.G	--	OM-4.2.5 Main Turbine Stop and Governor Valves with Turbine Trip Test Unit 1 & 2 (TS-3 & 4) tests valve closure. OP-1C tests valves on turbine startup	--
19	Low Pressure Turbine Rotor Inspection	Visual and magnetic particle or liquid penetrant	--	5yrs	RMP-63 LP turbine rotor inspection	--
20	Boric Acid System	Storage Tank and piping temperature \geq temperature as required by Table 15.3.2-1 (concentration, temperature)	T15.3.2-1	daily	OM-4.2.5-Auxiliary Bldg. Shift Log (PBF-2031)- Boric Acid Tanks Temperature (1/2TI-107&TI-103), 80 - 120°F (no check for concentration), Boric Acid Piping check (TR-4177) recorder operating and no sensor points in alarm or bypass (references OI-99A)	OM-4.2.5 Surveillance requirement of temperatures $\geq 145^\circ\text{F}$ is incorrect. Also, TS reference should be Table 15.4.1-2 (Item 20) not Item 21. Further, Surveillance Requirement for "Test boric acid piping heat tracing circuit operability" should be deleted. PBF 2031 should read

ITEM #	TABLE 15.4.1-2 Description	Test	TS LCO cross reference	Frequency	Test Procedure	Comments
						"Boric Acid Piping Temperature," not Boric Acid "Heat Tracing Recorder."
21a	PORV Block Valves	Complete valve cycle	15.3.1.A.5	--	Q: OM-4.2.5- IT-20 (stroke timing Unit 1), IT-25 (stroke timing Unit 2), IT-200 & 205 (ditto during CSD)	--
21b	PORV Block Valves	Open position check	15.3.15 15.3.1.A.5	--	72 hrs when overpressure mitigation system required to be operable: Control Room Shift Log Unit 1 & 2 (PBF-2034 & 2035) and Control Room Cold Shutdown Log Unit 1 & 2 (PBF-2038 & 2039) check valve position	Logs do not specify acceptable position as being open when overpressure mitigation system required to be operable
22	Integrity of Post Accident Recovery Systems Outside Containment	Evaluate	--	each refueling cycle	IT-500 SERIES (except 560 for test of CVCS holdup tanks and 570 for drain system) procedures for system/component leak testing, monitoring, and preventive maintenance.	IT-510B step 1.2 incorrect reference to TS Table 15.4.1-2(24), IT-515B step 1.2 incorrect reference to TS Table 15.4.1-2(24); IT-545B (Containment spray) does not reference TS Table 15.4.1-2(22), there is no CS procedure for Unit 1- Procedure is being developed(IT-545A??)
23	Containment Purge Supply and Exhaust Isolation Valves	Verify valves are locked closed	15.3.6.A.1.c	--	OM-4.2.5-Containment Purge Valve Position (TS-32) valves position indication closed and switches locked	OM-4.2.5 TS reference should be Table 15.4.1-2 (Item 23) not Item 25
24a	Reactor Trip Breakers	Verify independent operability of automatic shunt and undervoltage trip functions	T15.3.5-2 #17	--	ICP-2.018-1, ICP-2.003A&B-1, ICP-2.017-1, ICP-2.023A&B-1, ICP-2.024A&B-1, ICP-2.015-1	--
24b	Reactor Trip Breakers	Verify independent operability of manual trip to shunt and undervoltage trip functions	T15.3.5-2 #17	--	ICP-2.018-1	--
25a	Reactor Trip Bypass Breakers	Verify operability of the undervoltage trip function	--	--	ICP-2.003, ICP-2.003A&B-1, ICP-2.017-1, ICP-2.023A&B-1, ICP-2.024A&B-1, ICP-2.015-1	--
25b	Reactor Trip Bypass Breakers	Verify operability of the shunt trip functions	--	--	ICP-2.003, ICP-2.003A&B-1, ICP-2.017-1, ICP-2.023A&B-1, ICP-2.024A&B-1, ICP-2.015-1	--
25c	Reactor Trip Bypass Breakers	Verify operability of the manual trip to undervoltage trip functions	--	--	ICP-2.18	--
26	120 VAC Vital Instrument Bus Power	Verify energized	15.3.7.A.1.h	--	Turb Bldg Shift Log (PBF-2032), Turb Bldg CSD Log (PBF-2077) check enter output voltage and amps and inverter supplying load lamp indication for Inverters 1, 101, 1DY02, DY0A, DY0B, 2DY01, 2DY02, Aux Bldg Shift Log (PBF-2031)-Static Transfer Switch Position (i.e., inverter supplying load) and Voltage (114 to 130 volts) for buses 1DY03, DY0C, 2DY03, 1DY04, DY0D, and 2DY04	OM-4.2.5, erroneous references to CR Shift Log (PBF-2034/2035, 2040/2041), CR CSD Log (PBF-2038/2039)

ITEM #	TABLE 15.4.1-2 Description	Test	TS LCO cross reference	Frequency	Test Procedure	Comments
27	Power Operated Relief Valves, PORV Solenoid Air Control Valves, and Air System Check	Operate	15.3.1 A.5	—	ea shutdown; OM-4.2.5, IT-200 (Unit 1 valves manual operation and air system checks), IT-205 (Unit 2 valves manual operation and air system checks)	—
28	Atmospheric Steam Dumps	Complete valve cycle	15.3.4 A.5	Quarterly	IT-90 (Unit 1) & IT-95 (Unit 2) valves stroked and timed using valves' steam dump controllers	—
29	Crossover Steam Dump System	Verify operability of each steam dump valve	15.3.4 E	—	OM-4.2.5-Crossover Steam Dump Unit 1 & 2 (TS-41 & TS-42) opens valves with test switch	OM-4.2.5 TS reference should be Table 15.4.1-2 (Item 29) not Item 31
30	Pressurizer Heaters	Verify that 100 KW of heaters are available	15.3.1 A.6	—	OM-4.2.5-Pressurizer Heater Group Energy Input Test (TS-43) for hot conditions measures current draw (energy calculated on PBF-2052), RESP-3.1 is used during startup @ 530°F.	OM-4.2.5 TS reference should be Table 15.4.1-2 (Item 30) not Item 32
31	CVCS Charging Pump	Verify operability pumps	15.3.2	Quarterly	IT-21 (Unit 1) & IT-22 (Unit 2) runs each pump to 1350 rpm checks flow, vibration & oil pressure, also checks valves CV-295 & 370	—
32	Potential Dilution in Progress Alarm	Verify operability of alarm	—	—	OM-4.2.5-Hot Shutdown to Cold Shutdown (OP-3C) arms and tests the alarm	OM-4.2.5 TS reference should be Table 15.4.1-2 (Item 32) not Item 34

TS Section	Surveillance Requirement	TS LCO cross reference	Implementing Procedure	Comments
15.4.2 A	Steam generator tube inspection requirements	15.3.1 A.2 a	SEM 7.11.4	—
15.4.2 B	ISI and testing of safety class components other than SG tubes	—	Point Beach Nuclear Plant Inservice testing Program	—
15.4.3 a	When the primary system is closed after it has been opened the system will be leak tested at not less than 2235 psig for operation at 2250 psia or not less than 2085 psig for operation at 2000 psia	15.3.1 D	IT-230 (Unit 1) & IT-235 (Unit 2) leak check at 2085 psig performed when directed by OP-1A step 4.11.6	—
15.4.3 b	When primary system mods or repairs have been made which involve new strength welds on components > 2" in dia the new welds will receive both a surface and 100% volumetric NDE	15.3.1 D	NP-7.4.3 Post maintenance and modification NDE requirements for power piping	—
15.4.3 c	When primary system mods or repairs have been made which involve new strength welds on components ≤ 2" in dia the new welds will receive a surface NDE	15.3.1 D	NP-7.4.3 Post maintenance and modification NDE requirements for power piping	—
15.4.4 I	Perform required visual examinations and leakage rate testing in accordance with the Containment Leakage Rate Testing Program	15.3.6 E	CL-1D step 2.36, TS-10 Local leak testing of containment personnel hatches, TS-10A Containment airlock door seal testing	CL-1D step 2.36 Tech Spec reference should be 15.4.4.I
15.4.4 II	Tendon Surveillance	15.3.6	CL-1D step 2.41	CL-1D step 2.36 Tech Spec reference should be 15.4.4.II, III, IV
15.4.4 III	End anchorage concrete surveillance	15.3.6	CL-1D step 2.41	CL-1D step 2.36 Tech Spec reference should

TS Section	Surveillance Requirement	TS LCO cross reference	Implementing Procedure	Comments
15.4.4.IV	Liner Plate	15.3.6	CL-1D step 2.41	be 15.4.4.II, III, IV CL-1D step 2.36 Tech Spec reference should be 15.4.4.II, III, IV
15.4.5.IA.1.a	The safety injection system tests shall be performed with RCS pressure \leq 350 psig and temperature \leq 350°F. A test SI signal will initiate operation of the system, motor breakers for the SI & RHR pumps may be racked to test or racked in.	15.3.3.A Table 15.3.5-3 #3a	ORT-3 or ORT-3A & 3B	—
15.4.5.IA.2	The safety injection system tests will be considered satisfactory if control board indication and visual observations indicate that all components have received the SI signal in the proper sequence and timing.	15.3.3.A	ORT-3 or ORT-3A & 3B, ICP-10.22 (I&C support - verification of selected relay proper actuation)	—
15.4.5.IB.1	Containment spray system tests performed with spray to containment blocked, initiated from normal actuation instrumentation, breakers for pumps in the test position.	15.3.3.B	ORT-6	—
15.4.5.IB.2	Test satisfactory if visual observations indicate all components have operated satisfactorily.	15.3.3.B	ORT-6	—
15.4.5.IB.3	Spray nozzles shall be checked to verify that they are not obstructed every 5 yrs.	15.3.3.B	TS-37 (Unit 1) & TS-38 (Unit 2) Containment spray nozzle check	—
15.4.5.IC.1	Containment fan coolers shall be tested at each refueling outage to verify proper operation of the backdraft dampers and the service water bypass valves.	15.3.3.B	ORT-3 (service water bypass valves), ORT-7 (operation of the backdraft dampers)	—
15.4.5.IC.2	Containment fan cooler accident fans tested monthly, fans start and running current verified.	15.3.3.B	TS-33 (Unit 1) & TS-34 (Unit 2) containment accident recirculation fan cooler monthly test (starts any fan not running and measures amps)	Procedures do not test fan start unless not already running
15.4.5.II.A.1	SI, RHR, and containment spray pumps shall be tested in accordance with the IST Program.	15.3.3.A 15.3.3.B	IT-01, IT-02, IT-03, IT-03A, IT-04, IT-04A, IT-05, IT-06	—
15.4.5.II.A.2	Acceptable levels of performance shall be that the pumps start, reach their required developed head and operate for at least 15 minutes on the full flow test lines.	15.3.3.A 15.3.3.B	IT-01, IT-02, IT-03, IT-03A, IT-04, IT-04A, IT-05, IT-06 direct the operation of pumps for a minimum of 15 minutes before performance data is taken. IT-01, 02, 3A, 4A reference the Operations Standing Order as containing pump and valve operability criteria while IT-03, 04, 05, 06 reference the IST Acceptance Criteria Binder.	This conclusory statement is not explicitly reiterated in any pump test procedure ANALYSIS section. There is no longer a standing order book
15.4.5.II.B.1	At least every refueling, verify by visual inspection each containment sump suction inlet is not restricted by debris, debris strainers are ok structurally.	—	PC-24 step 6.5.3	—
15.4.5.II.B.2	Verify each manual, power operated and automatic valve necessary to insure system operability in ECCS and CS, not secured in position, is in correct position once every 31 days.	15.3.3.A 15.3.3.B	Per Operations all of these valves are secured in position, therefore no surveillance is performed.	—

TS Section	Surveillance Requirement	TS LCO cross reference	Implementing Procedure	Comments
15.4.6.A.1	Diesel generator monthly manual test (start, load and run)	15.3.7.B.1 f,g,h	TS-81 (G-01), TS-82 (G-02), TS-83 (G-03), TS-84 (G-04) Emergency diesel monthly	--
15.4.6.A.2	Diesel generator auto start (on actual loss of AC w/ simulated SI), load shed, load sequence	15.3.7.B.1 f,g,h	ORT-3, ORT-3A, ORT-3B	--
15.4.6.A.3	Proper operation of emergency lighting including automatic switch to DC demonstrated during each refueling	--	ORT-3, ORT-3A, ORT-3B Attachment A	DC lighting verified only in control room. Bases speak of lighting in certain safeguard's equipment areas and that the test verifies that the automatic transfer switch operates properly and provides power to the DC emergency lighting.
15.4.6.A.4	Diesel generator inspection per vendor recommendations	15.3.7.B.1 f,g,h	RMP-9043-1 EDG G-01 Train A Preventive maintenance invokes the following: RMP-9043-11 (2 year electrical inspection), RMP-9043-12 (protective relay calibration), RMP-9043-13 (2 year mechanical inspection), RMP-9043-14 (6 & 12 year mechanical inspection), RMP-9043-16 (mini power pack inspection), ICP-13 007A-1 (24 mo. instrument calibration), RMP-9325 (4 16 KV breaker maintenance). RMP-9043-4 EDG G-01 Train B Preventive maintenance invokes the following: RMP-9043-41 (2 year electrical inspection), RMP-9043-42 (protective relay calibration), RMP-9043-43 (2 year mechanical inspection), RMP-9043-14 (6 & 12 year mechanical inspection), RMP-9043-16 (mini power pack inspection), ICP-13 007B-2 (24 mo. instrument calibration), RMP-9353 (4 16 KV breaker maintenance).	--
15.4.6.A.5	Monthly diesel fuel oil system operability verified	15.3.7.B.1 f,g,h	TS-81 (G-01), TS-82 (G-02), TS-83 (G-03), TS-84 (G-04) Emergency diesel monthly Attachments B (Fuel oil sump tank pump operability)	--
15.4.6.A.6	Diesel fuel oil testing program	15.3.7.B.1 f,g,h	TS-80 obtains samples, sends to lab and compares results to	--

TS Section	Surveillance Requirement	TS LCO cross reference	Implementing Procedure	Comments
			acceptance criteria for fuel oil storage tanks T-175A & B and EDG day tanks T-31A & B & T-176A & B (quarterly)	
15.4.6.3.1	Safety related batteries monthly cell voltage, pilot cell specific gravity and temperature	15.3.7.A.1.f	RMP-9046-1	--
15.4.6.3.2	Safety related batteries every 3 mos specific gravity, height of electrolyte, amount of water added to each cell and temperature of every fifth cell	15.3.7.A.1.f	RMP-9046-1	--
15.4.6.3.3	Each time data is recorded new data shall be compared to old	15.3.7.A.1.f	RMP-9046-1	--
15.4.6.3.4.a	Each safety related battery shall be demonstrated operable at least once per 18 mos by a service test	15.3.7.A.1.f	RMP-9200, RMP-9200-1, RMP-9200-2, RMP-9200-3, RMP-9200-4, RMP-9200-5	--
15.4.6.3.4.b	Each safety related battery shall be demonstrated operable at least once per 60 mos by a battery discharge test	15.3.7.A.1.f	RMP-9200, RMP-9200-1, RMP-9200-2, RMP-9200-3, RMP-9200-4, RMP-9200-5	--
15.4.6.3.4.c	Annual discharge tests if battery shows signs of degradation or reached 85% of expected life	15.3.7.A.1.f	RMP-9200	--
15.4.7.A	Main steam stop valves following refuel with closure times ≤ 5 sec from signal initiation to valve closed	15.3.4.D	TS-39 (Unit 1) & TS-40 (Unit 2) test MSIV closure < 5 sec (close signal from control room switch), IT-280, 280A, 280B, 285, 285A, 285B for units 1 & 2 also test MSIV closure < 5 sec (close signal from control room switch or test buttons)	should test be from an automatic close signal - bases refer to instrument response time for steam break??
15.4.7.B	Non-return check valves tested for operability during refueling	15.3.4.D	IT-310 (Unit 1) & IT-315 (Unit 2) performs operability testing during refueling (closure torque measurement w/ torque wrench)	--
15.4.8.1.a	Each motor driven AFW pump will be started quarterly	15.3.4.A 15.3.4.C	IT-10 Test of electrically driven AFW pumps and valves	--
15.4.8.1.b	Each steam driven AFW pump will be started quarterly	15.3.4.A 15.3.4.C	IT-08A (Unit 1) & IT-09A (Unit 2) cold fast start of the turbine driven AFW pump	--
15.4.8.1.c	The AFW pump discharge and service water supply valves on the suction side will be tested quarterly by operator action	15.3.4.A 15.3.4.C	IT-08, IT-08A, IT-09, IT-09A, IT-10, IT-10A stroke time these valves	--
15.4.8.2	AFW tests considered satisfactory if control board indication and subsequent visual observation of equipment demonstrate all components have operated properly	15.3.4.A 15.3.4.C		This conclusory statement is not explicitly reiterated in any AFW test procedure ANALYSIS section
15.4.9	Reactivity anomalies the actual boron concentration shall be compared to predicted periodically	--	RESP-6.5 performs a reactivity anomaly check on a monthly basis	--
15.4.11.1	Control room emergency filtration once per year pressure drop $< 6"$ H ₂ O at	15.3.12	NP-4.3.2, HPIP-11.54 step 5.4	--

TS Section	Surveillance Requirement	TS LCO cross reference	Implementing Procedure	Comments
	design flow			
15.4.11.2	Control room emergency filtration once per year auto initiation	15.3.12	TS-9 (monthly) RE-101 & RE-235 used to initiate start (alarms, dampers shift, fan start & run), ORT-3	TS 15.4.11.2 & 3 not referenced
15.4.11.3	Control room emergency filtration operated at least 10 hrs every month	15.3.12	TS-9 (monthly) each of 2 fans run for 5 hrs	--
15.4.11.4 a	HEPA and adsorber test and analysis once per year or after 720 hrs of operation since last test, after painting, fire or chemical release	15.3.12	NP-4.3.2, HPIP-11.54	In-place test results are not documented and compared with acceptance criteria in HPIP-11.54 There are no links between 720 hrs, and after painting, fire or chemical release and performance of tests
15.4.11.4 b	Cold DOP test following filter changeout or structural work	15.3.12	NP-4.3.2, HPIP-11.54	There are no links between changeout or structural work and test and performance of tests
15.4.11.4 c	Halogenated hydrocarbon testing following adsorber replacements or structural work	15.3.12	NP-4.3.2, HPIP-11.54	There are no links between changeout or structural work and test
15.4.11.4 d	Lab analysis of in-place adsorber once per year or every 720 hrs of service	15.3.12	NP-4.3.2, HPIP-11.54	Lab test results are not documented and compared with acceptance criteria in HPIP-11.54
15.4.11.4 e	Fans tested once per year or every 720 hrs of operation and following fan maintenance	15.3.12	NP-4.3.2, HPIP-11.54	There are no links between 720 hrs, and after fan maintenance
15.4.12.B.1	Each sealed source shall be tested for leakage and/or contamination at intervals not exceeding 6 mos	--	NP-4.3.2, PBF-4017a	--
15.4.12.B.2	Stored sources shall be tested for leakage prior to use or transfer	--	HPIP-8.5 Sealed source leak testing step 9.1.6 d	--
15.4.12.B.3	Startup sources shall be leak tested prior to and following maintenance and before being subject to core flux	--	HPIP-8.5 Sealed source leak testing step 9.1.5	--
15.4.13.1	Shock suppressors (snubbers) shall be visually inspected to verify operability in accordance with the following schedule	15.3.13	CL-1D step 3.32, RMP-9060 safety related snubber visual inspection for operability, determines next inspection interval, and updates CHAMPS	--
15.4.13.2	During each refueling 10% of the snubbers shall be functionally tested for operability	15.3.13	CMP-10.1 step 4.1.1 specifies selection of snubbers to be tested, RMP-61 performs snubber functional testing	--
15.4.14.1	All slings and special lifting devices used in supporting heavy loads from either the main or auxiliary hoist of the auxiliary building crane shall be inspected immediately prior to use	--	RP-7 step 4.6	--
15.4.15.A.1 a	Fire suppression system fire main loop water supply valve position verification - monthly	15.3.14	TS-73 monthly fire protection control valve position	TSs related to fire suppression and detection systems do not have explicit references to the TS requirements they satisfy

TS Section	Surveillance Requirement	TS LCO cross reference	Implementing Procedure	Comments
15.4.15.A.1.b	Fire suppression system fire main loop water supply fire pump functional - monthly	15.3.14	TS-70 monthly diesel engine driven fire pump functional and verifies, TS-71 monthly electric motor driven fire pump functional	--
15.4.15.A.1.c	Fire suppression system fire main loop water supply fire pump capacity - yearly	15.3.14	TS-72 annual fire pump capacity test	--
15.4.15.A.1.d.1	Fire suppression system fire main loop water supply diesel pump engine fuel volume - monthly	15.3.14	TS-70 refills day tank if needed after run test	--
15.4.15.A.1.d.2	Fire suppression system fire main loop water supply diesel pump engine fuel analysis - quarterly	15.3.14	TS-80 quarterly sampling of fuel oil tanks (incl. T-72 supplies diesel fire pump)	Diesel fire pump day tank (T-30) is not sampled.
15.4.15.A.1.d.3	Fire suppression system fire main loop water supply diesel pump engine periodic inspection - 18 mo	15.3.14	RMP-37 Diesel fire pump engine periodic inspection	--
15.4.15.A.1.e.1	Fire suppression system fire main loop water supply diesel pump battery and charger battery voltage verification - weekly	15.3.14	Turbine building shift log Unit 2 (PBF-2033)	--
15.4.15.A.1.e.2	Fire suppression system fire main loop water supply diesel pump battery and charger electrolyte level - weekly	15.3.14	Turbine building shift log Unit 2 (PBF-2033)	--
15.4.15.A.1.e.3	Fire suppression system fire main loop water supply diesel pump battery and charger electrolyte specific gravity - quarterly	15.3.14	RMP-9094	--
15.4.15.A.1.e.4	Fire suppression system fire main loop water supply diesel pump battery and charger periodic inspection - 18 mo	15.3.14	RMP-9094	--
15.4.15.A.2.a	Fire suppression system water sprinkler systems valve position verification - monthly	15.3.14	TS-73 monthly fire protection control valve position	--
15.4.15.A.2.b	Fire suppression system water sprinkler systems Inspector's test - yearly	15.3.14	TS-74 annual underground fire main flow test, TS-76 quarterly automatic sprinkler and water spray system surveillance test	--
15.4.15.A.2.c	Fire suppression system water sprinkler systems visual header and nozzle inspection - 18 mo	15.3.14	TS-76 quarterly automatic sprinkler and water spray system surveillance test step 4.6.1 visual inspection	--
15.4.15.A.3.a	Fire suppression system fire hose stations visual inspection - monthly	15.3.14	TS-79 monthly surveillance of fire hose stations	--
15.4.15.A.3.b	Fire suppression system fire hose stations hydro - 2 yrs	15.3.14	TS-75 biennial service testing of fire hose and fire hose stations	--
15.4.15.A.3.c	Fire suppression system fire hose stations valve cycle test - 3 yrs	15.3.14	TS-75 biennial service testing of fire hose and fire hose stations	--
15.4.15.A.4.a	Fire suppression system Halon gaseous suppression systems Halon verification - 6 mos	15.3.14	TS-78 checks agent quality in March & September	--
15.4.15.A.4.b	Fire suppression system Halon gaseous suppression systems functional test - yearly	15.3.14	TS-78 performs functional test in March	--
15.4.15.A.4.c	Fire suppression system Halon gaseous suppression systems visual header and nozzle inspection - yearly	15.3.14	TS-78 checks discharge nozzles and remaining components in March	--

TS Section	Surveillance Requirement	TS LCO cross reference	Implementing Procedure	Comments
15.4.15.8.1.a	Fire detection system channel functional test - 6 mo	15.3.14	TS-77 semi-annual smoke detection system integrity test, TS-78 semi-annual HALON 1301 fire suppression system surveillance test sections 4.1 (smoke detection only)	TS-77 & 78 do not reference the Tech Spec surveillance criteria. TS-78 sections 4.3 (system operation and alarm functional test) and 4.4 (heat detector test and hose hydrostatic test) are performed annually - Investigate further, Table 15.3.14-1 lists smoke detectors only - smoke tested semi-annually per TS, heat tested annually per good practices (Codes, Standards?)
15.4.15.C.1.a	Fire barrier penetration seals visual inspection - 18 mo	15.3.14	RMP-57, 58, 59	--
15.4.16.A	Periodic leakage testing on each valve in Table 15.4.16-1 (SI-845A-F, SI-853A-D, SI-867A & B) every refueling, every CSD if for 72 hrs if not tested in last 9 mo and after maintenance or repair	15.3.16	TS-30 (Unit 1) & TS-31 (Unit 2) test these valves	--

CONDITION REPORT
CR 97-0723

STATUS: OPEN UNIT: 1 SYSTEM: TU INITIATED: 03/04/97 CLOSED:
MSS #: ADMINISTRATOR:
INITIATOR: ISSUE MANAGER:
NUMBER OF OPEN ACTIONS: 1 NUMBER OF CLOSED ACTIONS: 0

Turbine Overspeed Block Trip

DESCRIPTION:

During a review of administrative controls implementing TS Table 15.4.1-1, surveillances as part of U2R22 Startup item #7, a calibration procedure for the required annual (refueling) calibration of the turbine overspeed block trip could not be located. ORT-4 (functional test) overspeeds the turbine and records rpm when the mechanical trip actuates and directs operators to contact Maintenance if the trip is outside the allowable rpm range. This ORT-4 test may inadequately meet the calibration requirement of the turbine overspeed block trip, resulting in the violation of TS Table 15.4.1-1, Item 42.

Significance: Potential missed technical specification surveillance.

STATUS UPDATE:

SCREENED BY :	DATE: 03/10/97
REGULATORY REPORTABLE..... (Y/N) : N	TS VIOLATION..... (Y/N) : N
10 CFR 21..... (Y/N) : N	TS LCO..... (Y/N) : N
OPERABILITY IMPACT PER TS. (Y/N) : Y	JCO REQUIRED..... (Y/N) : N
MSS REVIEW..... (Y/N) : N	SCAQ..... (Y/N) : N
OPERABILITY DETERMINATION. (Y/N) : N	COMMITMENT..... (Y/N) : N

SUPPORTING DETERMINATIONS:

This has been identified as a possible missed technical specification surveillance due to a missed calibration of the overspeed trip testing of the turbine. At this point, it appears the testing is completed as part of an I+C callup, however, a full evaluation is needed to determine if this item is truly a missed surveillance and thus requires an LER. This is currently ongoing. At this point there are no immediate operability or reportability concerns.

REFERENCES:

NPL 97-0048 ICP-10.16

TRENDING INFORMATION:

WHEN : FIRST QUARTER OF 1997
NON-OUTAGE
WHO : OPERATIONS
INSTRUMENTATION AND CONTROL MAINTENANCE
WHY : ADMINISTRATIVE CONTROLS (SPAC) WERE CONFUSING OR INCOMPLETE
WHAT : INSTRUMENTATION AND CONTROL PERIODIC MAINTENANCE
REGULATORY DOCUMENT - TECHNICAL SPECIFICATION RELATED
INSTRUMENTATION AND CONTROL PROCEDURE
ELECTRICAL INSTRUMENTATION OR CONTROL DEVICES
SYSTEM: TURBINE RELATED

ACTIONS	PRI	ACTION STATUS	RESPONSIBLE PERSON	DUE DATE
1	-100	ACTION NEEDED		

ACTION ITEM STATUS REPORT

PAGE 1
03/26/97

***** Responsible Person:
* Trkid: CR 97-0723 * Urgency: NO DUE DATE ASSIGNED
* Action Number: 1 * Work Priority: -100

Activity Pending is: ACTION NEEDED

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

Turbine Overspeed Block Trip

Determine if the turbine overspeed block trip testing is completed in accordance with the technical specification requirements, and if the technical specification requirements have been missed. If yes, ensure appropriate LCO is entered and that the testing is completed within the technical specification allowed timeframe. If not, provide the justification for responding that the testing performed conforms with technical specification requirements. Make recommendations for action as appropriate.

(per 3/6/97 morning meeting discussions)

-----DATES-----

Source Record: 03/04/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due:
Action Create: 03/10/97	Orig Eval Due:	Orig CA Due:
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

(03/18/97 Received Action into Group: BMS
Responsible Person:

-----REFERENCES-----

NPL 97-0048 ICP-10.16

-----MISCELLANEOUS-----

Originating Agency:	System: TU
NRC Open Item Number:	NRC Status:
Related Outages:	
Engineering Work Type: Evaluation	
Person Hours: Original Estimate =	
Current Estimate =	
Actual Hours =	

CONDITION REPORT
CR 97-0724

STATUS: OPEN UNIT: 1 SYSTEM: 125VDC INITIATED: 03/04/97 CLOSED:
MSS #: ADMINISTRATOR:
INITIATOR: ISSUE MANAGER:
NUMBER OF OPEN ACTIONS: 1 NUMBER OF CLOSED ACTIONS: 0

Operation Of Emergency Lighting

DESCRIPTION:

During a review of administrative controls implementing emergency power system Technical Specifications as part of U2R22 Startup Item #7, it was identified that the intent of TS 15.4.6.A.3 may not be satisfied by plant procedures. Specification 15.4.6.A.3 requires the proper operation of emergency lighting, including the automatic transfer switch for DC lights, to be demonstrated during each reactor shutdown for a major fuel reloading. The bases to TS 15.4.6.A.3 state, "DC emergency lights are provided in certain safeguards equipment areas which must be attended to during a loss of all AC power. The emergency lighting test verifies that the automatic transfer switch operates properly and provides DC power to the DC emergency lights." However, ORT-3, ORT-3A, and ORT-3B verify operation of DC lighting only in the control room, which may not meet the intent of the TS 15.4.6.A.3.

Significance: Potential missed technical specification surveillance.

STATUS UPDATE:

SCREENED BY :	DATE: 03/10/97
REGULATORY REPORTABLE..... (Y/N) : N	TS VIOLATION..... (Y/N) : N
10 CFR 21..... (Y/N) : N	TS LCO..... (Y/N) : N
OPERABILITY IMPACT PER TS. (Y/N) : N	JCO REQUIRED..... (Y/N) : N
MSS REVIEW..... (Y/N) : N	SCAO..... (Y/N) : N
OPERABILITY DETERMINATION. (Y/N) : N	COMMITMENT..... (Y/N) : N

SUPPORTING DETERMINATIONS:

This CR describes a situation where the testing performed for the emergency DC lighting may not meet the full intent of the Technical Specification required test. The tests are being evaluated at this time to determine this and will be completed prior to any revisions to the tests or reportability statements. It is unknown if the tests meet the full intent at this time, however, it is believed that DC lights are tested adequately to satisfy the Technical Specifications. No immediate operability or reportability issues exist at this time.

REFERENCES:

NPL 97-0048

TRENDING INFORMATION:

WHEN : FIRST QUARTER OF 1997

WHO : NON-OUTAGE

WHO : OPERATIONS

WHO : MECH AND ELEC MAINTENANCE

WHY : ADMINISTRATIVE CONTROLS (SPAC) WERE CONFUSING OR INCOMPLETE

WHAT : REGULATORY DOCUMENT - TECHNICAL SPECIFICATION RELATED

WHAT : ELECTRICAL EQUIPMENT RELATED

SYSTEM: 125 VDC ELECTRICAL

ACTIONS	PRI	ACTION STATUS	RESPONSIBLE PERSON	DUE DATE
1	-100	ACTION NEEDED		04/15/97

ACTION ITEM STATUS REPORT

PAGE 1
03/26/97

***** Responsible Person:
* Trkid: CR 97-0724 * Urgency: DUE IN 16-30 DAYS
* Action Number: 1 * Work Priority: -100

Activity Pending is: ACTION NEEDED

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

Operation Of Emergency Lighting

Determine if the Technical Specification requirements for testing the emergency DC lighting system are being satisfied by the current testing procedures, and provide justification for not missing the Technical Specification required surveillance. If determined to be missed surveillance, ensure appropriate LCO is entered, testing is performed within the required timeframe, and the appropriate procedures are revised. Provide recommendation for further actions as deemed appropriate.

(per 3/6/97 morning meeting discussions)

-----DATES-----

Source Record: 03/04/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 04/15/97
Action Create: 03/10/97	Orig Eval Due:	Orig CA Due: 04/15/97
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

(03/11/97 Received Action into Group: EIS Due Date: 04/15/97
Responsible Person:

(03/11/97 ~~~) This item was discussed with Ops/MTN and there are other call-ups that actually do verify the functionality of the lighting. Please verify and document.

-----REFERENCES-----

NPL 97-0048

-----MISCELLANEOUS-----

Originating Agency:	System: 125VDC
NRC Open Item Number:	NRC Status:
Related Outages:	
Engineering Work Type: Evaluation	
Person Hours: Original Estimate =	
Current Estimate =	
Actual Hours =	

CONDITION REPORT
CR 97-0725

STATUS: OPEN UNIT: 1 SYSTEM: MS INITIATED: 03/04/97 CLOSED:
MSS #: ADMINISTRATOR:
INITIATOR: ISSUE MANAGER:
NUMBER OF OPEN ACTIONS: 1 NUMBER OF CLOSED ACTIONS: 0

Main Steam Stop Valve Closure Timing

DESCRIPTION:

During a review of administrative controls implementing main steam system valve Technical Specifications as a part of U2R22 Startup Item #7, it was identified that procedures TS-39, TS-40 and IT-280, 280A, 280B, 285, 285A, and 285B may inadequately measure the main steam stop valve closure times. TS 15.4.7.A requires closure times of five seconds or less measured from the time of signal initiation until the valve indicates closed. However, the controlling procedures measure the time of the control room switch or test buttons close signal to valve closure. This method does not include instrument response time as discussed in the bases to TS 15.4.7, which may result in less conservative main steam stop valve closure times.

Significance: Potential missed technical specification surveillance

STATUS UPDATE:

SCREENED BY :	DATE: 03/10/97
REGULATORY REPORTABLE..... (Y/N) : N	TS VIOLATION..... (Y/N) : N
10 CFR 21..... (Y/N) : N	TS LCO..... (Y/N) : N
OPERABILITY IMPACT PER TS. (Y/N) : N	JCO REQUIRED..... (Y/N) : N
MSS REVIEW..... (Y/N) : N	SCAQ..... (Y/N) : N
OPERABILITY DETERMINATION. (Y/N) : N	COMMITMENT..... (Y/N) : N

SUPPORTING DETERMINATIONS:

It is believed the current testing adequately tests the closure times for the Main Steam Stop Valves, however further review and evaluation of the procedures is warranted to ensure no missed surveillances have occurred. Therefore, no immediate operability or reportability items are believed to exist for this item at this time.

REFERENCES:

NPL 97-0048

TRENDING INFORMATION:

WHEN : FIRST QUARTER OF 1997
— : NON-OUTAGE

WHO : OPERATIONS

WHY : ADMINISTRATIVE CONTROLS (SPAC) WERE CONFUSING OR INCOMPLETE

WHAT : REGULATORY DOCUMENT - TECHNICAL SPECIFICATION RELATED

OPERATIONS PROCEDURE

MECHANICAL CHECK VALVE RELATED

SYSTEM: MAIN, EXTRACTION, GLAND SEAL, and REHEAT STEAM

ACTIONS	PRI	ACTION STATUS	RESPONSIBLE PERSON	DUE DATE
1	-100	ACTION VERIFICATION		03/21/97

***** Responsible Person:
* Trkid: CR 97-0725 * Urgency: NOT DUE / IN CLOSEOUT
* Action Number: 1 * Work Priority: -100

Activity Pending is: ACTION VERIFICATION

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

Main Steam Stop Valve Closure Timing

Determine if the current testing adequately addresses the requirements found in the Technical Specifications and if a missed surveillance has in fact occurred. Provide justification if determined not to be a missed surveillance. If determined to be a missed surveillance, ensure appropriate LCO is entered, testing is completed within the required TS timeframe, and provide recommendations for corrective action to prevent recurrence.

(per 3/6/97 morning meeting discussions)

-----DATES-----

Source Record: 03/04/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 03/21/97
Action Create: 03/10/97	Orig Eval Due:	Orig CA Due: 03/21/97
Action Closed:	Eval Done:	Corr Act Done: 03/17/97

-----PEOPLE-----

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

-----UPDATE-----

(03/11/97 Received Action into Group: EIS Due Date: 03/21/97
Responsible Person:

(03/12/97 Passed to for acceptance of work.

(03/17/97 Passed to for Verification.

Review of TS 15.4.7.A shows that the closure time (for the main steam line isolation valves) of five seconds or less shall be verified and the five seconds shall be measured from the time of signal initiation until the valve indicates closed. The basis of the TS states that a closure time of five seconds was selected as being consistent with the expected response time for instrumentation as detailed in the steam line break incident analysis. This may be interpreted to mean that the five seconds includes instrumentation response time. Review of FSAR 14.2.5 for Rupture of a Steam Pipe is not conclusive as to whether the five seconds does or does not include instrument response time. The FSAR analysis does state that the fast acting steam line isolation valves (are) (designed to close in less than 5 seconds with low flow). The FSAR implies that the actuating signal for steamline isolation is the safety injection (SI) actuation signal. However, there is no definitive information in the FSAR to support this.

Review of Accident Analysis Basis Document DBD-I-35, Volume 4, Module 12, Rev. 0 for the Rupture of a Steam Pipe on page 12-22 under Engineered Safeguards Features, Steamline Isolation states: "A total response time of 7 seconds is assumed from the time the setpoint is reached until completion of closure of the steamline isolation valves. This response is generally broken down as a 2 second allowance for signal processing (Ref. 12.7-21) and 5 seconds for valve closure (Ref. 12.7-21); however, the analysis does not model this specific breakdown for the response time and therefore only forces a requirement on the total time to complete the isolation function." Review of the specific cases of the accident that initiate the steamline isolation function (note: there are two cases that do not initiate steam line isolation) in the DBD Table 12-4 shows that the SI signal, in concert with high-high steam flow, is the initiating actuation for the steamline isolation. From the time that the SI actuation setpoint is reached to the SI actuation is 2.0 seconds, and from the SI actuation to the Steamline Isolation is 5.0 seconds. Although the DBD stated time is for 7 seconds from reaching setpoint until isolation valve closure, the actual case studies utilize the 2 and 5 second requirements.

Therefore, DBD shows that the five second closure time of the main steam

isolation valve is in fact the time from signal initiation to valve closure and does not include instrumentation response time. Present testing substitutes the SI contact closure with a manual switch contact closure, which is an acceptable substitute for the initiation signal since timing is started from throwing of the switch. The full closure time includes steamline isolation relay pickup, valve circuit actuation and valve stroke. This is fully embodied in the TS requirement and the present testing. Therefore, the present testing meets the TS requirement, and there is no TS violation and no need to revise the testing based upon this concern.

However, it is recommended that the wording in the TS basis be revised to eliminate the words "time for instrumentation" so that the basis reads, "A closure time of five seconds was selected as being consistent with the expected response as detailed in the steam line break incident analysis." This will more accurately reflect the actual analysis and eliminate any potential misunderstanding about instrument response time.

This action item may be closed.

-----REFERENCES-----

NPL 97-0048

-----MISCELLANEOUS-----

Originating Agency:
NRC Open Item Number:
Related Outages:
Engineering Work Type: Evaluation
Person Hours: Original Estimate =
Current Estimate =
Actual Hours =

System: MS
NRC Status:

CONDITION REPORT
CR 97-0726

STATUS: OPEN UNIT: 1 SYSTEM: VNCC INITIATED: 03/04/97 CLOSED:
MSS #: ADMINISTRATOR:
INITIATOR: 2 ISSUE MANAGER:
NUMBER OF OPEN ACTIONS: 2 NUMBER OF CLOSED ACTIONS: 0

Containment Fan Cooler Accident Fan Test

DESCRIPTION:

During a review of administrative controls implementing ECCS and containment cooling system Technical Specifications as part of the U2R22 Startup Item #7, it was identified that procedures TS-33 and TS-34 may not be adequately implementing TS 15.4.5.I.C.2. TS 15.4.5.I.C.2 requires containment fan cooler accident fans to be operability tested monthly to verify that the accident fan starts and the running current is acceptable. However, TS-33 and TS-34 only starts fans that are not already running and measures the running current of those fans. Fans that are already running are not stopped and then started. Therefore, all fans may not be tested in accordance with TS 15.4.5.I.C.2.

Significance: Possible violation of missed surveillance Technical Specifications.

Corrective action taken: Declared that a TS surveillance was missed and commenced the testing of the fans. The testing was completed satisfactorily at 0403 on 3/5/97.

STATUS UPDATE:

SCREENED BY :	DATE: 03/06/97
REGULATORY REPORTABLE..... (Y/N) : N	TS VIOLATION..... (Y/N) : N
10 CFR 21..... (Y/N) : N	TS LCO..... (Y/N) : N
OPERABILITY IMPACT PER TS..... (Y/N) : Y	JCO REQUIRED..... (Y/N) : N
MSS REVIEW..... (Y/N) : N	SCAO..... (Y/N) : Y
OPERABILITY DETERMINATION..... (Y/N) : N	COMMITMENT..... (Y/N) : N

SUPPORTING DETERMINATIONS:

This CR was determined to be a missed Tech Spec Surveillance and the appropriate action statement was entered. The fans were retested within the allowed 24 hour period and the fans declared operable. This will require an LER due to a missed TS surveillance. No further operability or reportability issues exist at this time.

REFERENCES:

TECH SPEC 15.4.5.I.C.2 NPL 97-0048

TRENDING INFORMATION:

WHEN : FIRST QUARTER OF 1997
NON-OUTAGE
WHO : OPERATIONS
WHY : SITUATION WAS NOT COVERED BY PROCEDURE
WHAT : REGULATORY DOCUMENT - TECHNICAL SPECIFICATION RELATED
PROCEDURAL PROBLEM
MECHANICAL FAN RELATED

SYSTEM: CONTAINMENT COOLING H AND V

ACTIONS	PRI	ACTION STATUS	RESPONSIBLE PERSON	DUE DATE
1	-100	RECEIVE ASSIGNMENT		
2	-100	RECEIVE ASSIGNMENT		

ACTION ITEM STATUS REPORT

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***** Responsible Person:
* Trkid: CR 97-0726 * Urgency: NO DUE DATE ASSIGNED
* Action Number: 1 * Work Priority: -100

ASSOCIATED WITH A SCAQ ISSUE

Activity Pending is: RECEIVE ASSIGNMENT

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

Containment Fan Cooler Accident Fan Test

Revise TS-33 and TS-34 to ensure that all containment fan cooler accident fans are tested in accordance with Technical Specification 15.4.5.I.C.2.

-----DATES-----

Source Record: 03/04/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due:
Action Create: 03/06/97	Orig Eval Due:	Orig CA Due:
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

-----REFERENCES-----

TECH SPEC 15.4.5.I.C.2 NPL 97-0048

-----MISCELLANEOUS-----

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

ACTION ITEM STATUS REPORT

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***** Responsible Person:
* Trkid: CR 97-0726 * Urgency: NO DUE DATE ASSIGNED
* Action Number: 2 * Work Priority: -100

ASSOCIATED WITH A SCAQ ISSUE

Activity Pending is: RECEIVE ASSIGNMENT

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

Containment Fan Cooler Accident Fan Test

Develop an LER for the missed Technical specification surveillance concerning the containment fan cooler accident fan testing.

(per 3/5/97 morning meeting discussions)

-----DATES-----

Source Record: 03/04/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due:
Action Create: 03/06/97	Orig Eval Due:	Orig CA Due:
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

(03/07/97 Issued to Group: SI
Outstanding item from TS/Admin Control review. Please assign
to with a April 4, 1997, due date.

-----REFERENCES-----

TECH SPEC 15.4.5.I.C.2 NPL 97-0048

-----MISCELLANEOUS-----

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

CONDITION REPORT
CR 97-0727

STATUS: OPEN UNIT: 1 SYSTEM: FP INITIATED: 03/04/97 CLOSED:
MSS #: ADMINISTRATOR:
INITIATOR: } ISSUE MANAGER:
NUMBER OF OPEN ACTIONS: 2 NUMBER OF CLOSED ACTIONS: 0

Quarterly Diesel Driven Fire Pump Engine Fuel Sample Analysis

DESCRIPTION:

During a review of administrative controls implementing fire protection Technical Specifications as part of U2R22 Startup Item #7, it was identified that the diesel fire pump day tank (T-30) is not sampled during performance of TS-80. This may be in violation of Technical Specification 15.4.15.A.1.d.2 which requires a quarterly diesel driven fire pump fuel sample analysis.

Significance: Potential missed Technical Specification surveillance.

Corrective action taken: The applicable action statement of technical specifications was entered, the test sample was taken and sent to an independent lab for analysis.

STATUS UPDATE:

SCREENED BY :	DATE: 03/06/97
REGULATORY REPORTABLE..... (Y/N) : N	TS VIOLATION..... (Y/N) : N
10 CFR 21..... (Y/N) : N	TS LCO..... (Y/N) : N
OPERABILITY IMPACT PER TS. (Y/N) : Y	JCO REQUIRED..... (Y/N) : N
MSS REVIEW..... (Y/N) : N	SCAQ..... (Y/N) : Y
OPERABILITY DETERMINATION. (Y/N) : N	COMMITMENT..... (Y/N) : Y

SUPPORTING DETERMINATIONS:

This was determined to be a missed Technical Specification surveillance and is therefore LER reportable. The sample analysis is being performed and the results are to be back within 24 hours. The appropriate action statement was entered, and the fire pump declared inoperable until the return of the test results. There are no further operability or reportability requirements associated with this CR.

REFERENCES:

NP 97-0048 TS 15.4.15.A.1.D.2

TRENDING INFORMATION:

WHEN : FIRST QUARTER OF 1997
NON-OUTAGE
WHO : OPERATIONS
WHY : SITUATION WAS NOT COVERED BY PROCEDURE
WHAT : REGULATORY DOCUMENT - TECHNICAL SPECIFICATION RELATED
PROCEDURAL PROBLEM
MECHANICAL TANK OR PRESSURE VESSEL RELATED
CONSUMABLE OR REPLACEMENT PARTS RELATED
SYSTEM: FIRE PROTECTION

ACTIONS	PRI	ACTION STATUS	RESPONSIBLE PERSON	DUE DATE
1	-100	RECEIVE ASSIGNMENT		
2	-100	ACTION NEEDED		04/04/97

ACTION ITEM STATUS REPORT

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***** Responsible Person: *****
* Trkid: CR 97-0727 * Urgency: NO DUE DATE ASSIGNED
* Action Number: 1 * Work Priority: -100

Activity Pending is: RECEIVE ASSIGNMENT
ASSOCIATED WITH A SCAQ ISSUE
ASSOCIATED WITH A COMMITMENT

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

Quarterly Diesel Driven Fire PumpEngine Fuel Sample Analysis

Revise TS-80 to ensure that the diesel driven fire pump day tank is
sampled and analyzed in accordance with the requirements of Technical
Specification 15.4.15.A.1.d.2.

-----DATES-----

Source Record: 03/04/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due:
Action Create: 03/06/97	Orig Eval Due:	Orig CA Due:
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

-----REFERENCES-----

NP 97-0048 TS 15.4.15.A.1.D.2

-----MISCELLANEOUS-----

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

ACTION ITEM STATUS REPORT

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***** Responsible Person: -----
* Trkid: CR 97-0727 * Urgency: DUE IN 1-15 DAYS
* Action Number: 2 * Work Priority: -100

Activity Pending is: ACTION NEEDED

ASSOCIATED WITH A SCAQ ISSUE
ASSOCIATED WITH A COMMITMENT

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

Quarterly Diesel Driven Fire PumpEngine Fuel Sample Analysis

Prepare an LER for the missed Technical Specification concerning the
diesel driven fire pump day tank sampling listed in TS 15.4.15.A.1.D.2.

-----DATES-----

Source Record: 03/04/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 04/04/97
Action Create: 03/06/97	Orig Eval Due:	Orig CA Due: 04/04/97
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

(03/07/97) Received Action into Group: LRE
Responsible Person:

Due Date: 04/04/97

-----REFERENCES-----

NP 97-0048 TS 15.4.15.A.1.D.2

-----MISCELLANEOUS-----

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

CONDITION REPORT
CR 97-0746

STATUS: OPEN UNIT: 0 SYSTEM: XX INITIATED: 03/04/97 CLOSED:
MSS #: ADMINISTRATOR:
INITIATOR: ISSUE MANAGER:
NUMBER OF OPEN ACTIONS: 1 NUMBER OF CLOSED ACTIONS: 0

Environmental Monitoring Checks May Have Been Missed

DESCRIPTION:

During a review of administrative controls implementing TS Table 15.4.1-1 surveillances as part of U2R22 Startup Item #7, it was identified that monthly environmental monitor checks as required by TS Table 15.4.1-1, Item 30, are no longer performed. Radiological Engineering indicated that these checks are now being conducted quarterly in accordance with TS Table 15.7.7-1.

Significance: Possible missed Technical Specification surveillance

STATUS UPDATE:

SCREENED BY :	DATE: 03/06/97
REGULATORY REPORTABLE..... (Y/N) : N	TS VIOLATION..... (Y/N) : N
10 CFR 21..... (Y/N) : N	TS LCO..... (Y/N) : N
OPERABILITY IMPACT PER TS. (Y/N) : N	JCO REQUIRED..... (Y/N) : N
MSS REVIEW..... (Y/N) : N	SCAO..... (Y/N) : N
OPERABILITY DETERMINATION. (Y/N) : N	COMMITMENT..... (Y/N) : N

SUPPORTING DETERMINATIONS:

This is a discrepancy that needs to be resolved to determine if there is in actuality a missed technical specification surveillance. It does not cause any immediate operability concerns for the units and there is nothing to indicate that it is reportable at this time. Further evaluation will be performed to determine if the surveillance has been missed and determine the reporting requirements.

REFERENCES:

TS TABLE 15.4.1-1 TS TABLE 15.7.7-1
NPL 97-0048

TRENDING INFORMATION:

WHEN : FIRST QUARTER OF 1997
NON-OUTAGE
WHO : HEALTH PHYSICS
WHY : AWAITING FURTHER EVALUATION TO DETERMINE ROOT CAUSE
WHAT : REGULATORY DOCUMENT - TECHNICAL SPECIFICATION RELATED
HEALTH PHYSICS PROCEDURE
SYSTEM: NOT SYSTEM RELATED

ACTIONS	PRI	ACTION STATUS	RESPONSIBLE PERSON	DUE DATE
1	9	ACTION NEEDED		03/28/97

***** Responsible Person: *****
* Trkid: CR 97-0746 * Urgency: DUE IN 1-15 DAYS
* Action Number: 1 * Work Priority: 9

Activity Pending is: ACTION NEEDED

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

Environmental Monitoring Checks May Have Been Missed

Evaluate the discrepancy in the technical specification tables and determine if there has been a missed technical specification surveillance. Interface with Licensing to determine the reporting requirements should it be determined that a missed surveillance has occurred.

-----DATES-----
Source Record: 03/04/97 ***** Evaluation ***** ***** Correction *****
Commitment: Eval Due: Corr Act Due: 03/28/97
Action Create: 03/06/97 Orig Eval Due: Orig CA Due: 03/28/97
Action Closed: Eval Done: Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

(03/07/97 Received Action into Group: HP Due Date: 03/28/97
Responsible Person:

(03/07/97 Set Work Priority to 9. This item involves a change in the environmental monitoring program where high pressure ionization chambers were eliminated from the program in 1975. TS Table 15.4.1-1 item 30 was not updated to reflect this change. This may require a 30 day LER due to the missed surveillance.

(03/10/97 Changed Responsible Person: From o
Changed Responsible Group: From (HP) To (CHE).
Changed Responsible section: From (PRD) To (NES).. Reassigned per request.

(03/17/97 This item concerns Item 30 of TS 15.4.1, Table 15.4.1-1, which requires a monthly check of environmental monitors. The basis for the check required by Item 30, as stated in TS 15.4.1, is that "Failures such as blown instrument fuses, defective indicators, faulted amplifiers, which result in "upscale" or "downscale" indication can be easily recognized by simple observation of the functioning of an instrument or system." This "check" currently is not being done by anyone. The question has arisen as to whether not conducting the monthly check constitutes a TS violation. The two following questions have to be answered in order to determine if a TechSpec violation is involved.

1. What is meant by an environmental monitor.

Technical Specification 15.4.10, Operational Environmental Monitoring (April 20, 1970) states that the operation environmental monitoring program is outlined in Section 2.8 of the FFDSAR. It further states that gamma radiation chambers are used at various locations to provide a means of detecting significant changes in environmental radioactivity as the result of plant releases. The pre-operational environmental monitoring program (FFDSAR Table 2.8-1) listed film badges at two locations which were collected monthly to measure integrated radiation dose around the plant. A later amendment to the FFDSAR states that, in addition to the film badges, "...stray radiation chambers are also being employed for pre-operational studies..." and that "Consideration is being given to incorporating TLD badges into the program." Film badges, with their inherent fading, had been eliminated by the time of the PBNP Final Environmental Statement, submitted to the AEC in May 1972. The "post-operational environmental radioactivity survey" is described as including monthly or quarterly TLDs and ion chambers. The May 30, 1973 FFDSAR, Table 2.8-2 clarifies that there are two sets of TLDs: one set is read monthly, the other, quarterly. Results from these three sets of ambient environmental radiation measurements, ion chambers and two sets of TLD, are reported in the Semiannual monitoring reports until the January-July 1976 report and in the previous Operation Reports. Ion

chamber and monthly TLD results are not reported in subsequent monitoring reports.

Based on the frequency, the referenced monthly checks can only refer to either the monthly TLDs or the monthly ion chambers. However, based on the basis statement for the monthly check, TLDs can be eliminated because TLDs have not have fuses or amplifiers which would require checking as described in the TS 15.4.1 Basis Statement. This is further supported by a WE letter to Mr. John E. Stolzenberg by R. P. Rouse in reply to questions about the PBNP low-level radioactivity in the vicinity of PBNP that radiation chambers are the only part of the environmental analyses that are read by plant personnel.

2. Do the missed monthly checks constitute a TS violation?

Based on a review of pertinent documents, it is concluded that the monthly check listed in Item 30 of Table 15.4.1-1 in TS 15.4.1 is an item which was mistakenly not removed when TSCR No. 26 was submitted. The following outlines the sequence of events which lead to this conclusion.

In a January 24, 1975 memo to Glenn Reed, PBNP plant manager, E. J. Lipke documents the review of the radiological environmental monitoring program requested by Mr. Reed. The review recommends eliminating the monthly TLDs as redundant and a holdover from the old days of film badges. It also recommends the phase out of the ion chambers. Furthermore, the review recommends that an Environmental Manual be written to contain all of the requirements for the radiological environmental monitoring program instead of relying on numerous documents such as the FFDSAR and procedure HP-11A.

The monthly ion chambers and TLDs are not listed as part of the radiological environmental monitoring program in Rev. 0 of the Environmental Manual dated September, 1975. In the Lipke to Reed memo dated September 22, 1975, MSS approval of a change to the radiological environmental monitoring program is requested. The draft of the tech spec change request letter specifically states that radiation chambers, i.e. the stray radiation chambers or ion chambers mentioned in FFDSAR Table 2.8-1, are eliminated. Technical Specification Change NO. 26 submitted on October 10, 1975 also states in the cover letter that the radiation chambers are eliminated from the program. Also, Table 15.4.10-1 of the submittal which delineates the program only lists quarterly TLDs for measuring the gamma dose in the environments around PBNP. After additional material was supplied (on July 12 and August 12, 1976) in response to comments by the NRC, none of which concerned elimination of the monthly TLDs and ion chambers, written NRC approval for TSCR 26 was granted on September 23, 1976. The approved monitoring program did not include radiation chambers. Therefore, it is concluded that the mention of monthly checks of environmental radiation in TS Table 15.4.1-1 is an item which inadvertently was not removed from TS for TSCR #26 in 1975 and was superseded by the NRC approval of the program submitted by the TSCR request. Therefore, not conducting the monthly checks of environmental monitors in this table does not constitute a violation of technical specifications because the items to which Item 30 of the TS refers to were eliminated by a previous TS change.

03/17/97 Passed to for acceptance of work.

-----REFERENCES-----

TS TABLE 15.4.1-1 TS TABLE 15.7.7-1
NPL 97-0048

-----MISCELLANEOUS-----

Originating Agency:
NRC Open Item Number:
Related Open Items:
Engineering Work Type: None Specified
Person Hours: Original Estimate =
 Current Estimate =
 Actual Hours = 40

System: XX
NRC Status:

CONDITION REPORT
CR 97-0766

STATUS: OPEN UNIT: 1 SYSTEM: VNCR INITIATED: 03/04/97 CLOSED:
MSS #: ADMINISTRATOR:
INITIATOR: ISSUE MANAGER:
NUMBER OF OPEN ACTIONS: 1 NUMBER OF CLOSED ACTIONS: 0

Control Room Emergency Filtration Testing

DESCRIPTION:

During a review of administrative controls implementing control room emergency filtration Technical Specifications as part of U2R22 Startup Item #7, it was identified that TS 15.4.11.4 may not be adequately implemented by plant procedures. Health Physics procedure HPIP-11.54 was the only procedure that could be located which controlled the testing of TS 15.4.11.4, control room emergency filtration components. This procedure does not contain acceptance criteria, there is no reference to the required HEPA and charcoal absorber tests after 720 hours of operation and after painting, fire or chemical release in the control room, there is no reference to the required cold DOP tests after each complete or partial replacement of HEPA filters or after structural maintenance to the filter housing, and there was no reference to the required fan test after 720 hours of operation and following fan maintenance. Indications are that the fans are tested on an annual basis in March.

Significance: Potential for missed Technical Specification surveillances.

STATUS UPDATE:

SCREENED BY :	DATE: 03/11/97
REGULATORY REPORTABLE..... (Y/N) : N	TS VIOLATION..... (Y/N) : N
10 CFR 21..... (Y/N) : N	TS LCO..... (Y/N) : N
OPERABILITY IMPACT PER TS. (Y/N) : Y	JCO REQUIRED..... (Y/N) : N
MSS REVIEW..... (Y/N) : N	SCAO..... (Y/N) : N
OPERABILITY DETERMINATION. (Y/N) : N	COMMITMENT..... (Y/N) : N

SUPPORTING DETERMINATIONS:

This is a question as to whether the technical specification surveillance has been missed. At this point, through conversations with HP, it does not appear as though any TS surveillances have been missed. However, further evaluation will be performed to ensure this is the case. No immediate operability or reportability concerns exist at this time.

REFERENCES:

NPL 97-0048

TRENDING INFORMATION:

WHEN : FIRST QUARTER OF 1997

WHO : NON-OUTAGE

WHO : OPERATIONS

WHY : HEALTH PHYSICS

WHAT : ADMINISTRATIVE CONTROLS (SPAC) WERE CONFUSING OR INCOMPLETE

WHAT : HEALTH PHYSICS RELATED

REGULATORY DOCUMENT - TECHNICAL SPECIFICATION RELATED

HEALTH PHYSICS PROCEDURE

MECHANICAL FAN RELATED

SYSTEM: CONTROL ROOM HVAC

ACTIONS	PRI	ACTION STATUS	RESPONSIBLE PERSON	DUE DATE
1	52	ACTION NEEDED		04/04/97

ACTION ITEM STATUS REPORT

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03/26/97

***** Responsible Person
* Trkid: CR 97-0766 * Urgency: DUE IN 1-15 DAYS
* Action Number: 1 * Work Priority: 52

Activity Pending is: ACTION NEEDED

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

Control Room Emergency Filtration Testing

Determine if the current testing procedures have caused a missed Technical Specification surveillance for the control room emergency filtration system. If yes, ensure the proper technical Specification action statement is entered and the testing completed within the required timeframe. If not, provide justification for not missing the TS surveillance, and provide recommendations for corrective/improvement actions as appropriate.

(per on 3/10/97)

-----DATES-----

Source Record: 03/04/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 04/04/97
Action Create: 03/11/97	Orig Eval Due:	Orig CA Due: 04/04/97
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

(03/12/97 Received Action into Group: HP Due Date: 04/04/97
Responsible Person:

(03/12/97 Set Work Priority to 52. Failure to adequately perform tech spec required testing of the control room ventilation filters could question ability of the system to operate properly during accident conditions and may require an LER.

-----REFERENCES-----

NPL 97-0048

-----MISCELLANEOUS-----

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

CONDITION REPORT
CR 97-0831

STATUS: OPEN UNIT: 0 SYSTEM: XX INITIATED: 03/11/97 CLOSED:
MSS #: ADMINISTRATOR: '
INITIATOR: IVER ISSUE MANAGER:
NUMBER OF OPEN ACTIONS: 4 NUMBER OF CLOSED ACTIONS: 0

Procedures Have Missing, Incorrect And/Or Inconsistent References To
technical Specifications

DESCRIPTION:

Description: Many procedures have missing, incorrect, and/or inconsistent references to Technical Specifications. A review of administrative controls implementing Technical Specifications as part of U2R22 Startup Item #7 identified many procedures implementing Technical Specifications that have inadequate references to the associated Technical Specifications. The following procedures contain discrepancies: Engineering 1. RESP 3.1, Step 5.14.1, needs more specific TS references for restrictions with both RCPs deenergized 2. RESP-4.2 should reference TS Table 15.4.1-2 Item 9b 3. IT-510B + 515B Step 1.2 should reference TS Table 15.4.1-2 Item 22 rather than Item 24

4. IT-545B (Containment spray) should reference TS Table 15.4.1-2 Item 22 5. IT-01 + 02, Steps 4.2.36 and 4.3.36, and IT-3A + 4A, Steps 4.2.11, 4.3.13, and 5.4, reference the Operations Standing Order as containing pump and valve operability criteria. There is no longer an Operations Standing Order book.

Operations 1. CL-1A should reference the individual Specifications implemented (as in CL-1D). 2. CL-1D, Steps 2.5 and 3.6, should also reference TS 15.3.1.D.3

3. CL-1D, Step 3.31, should reference TS 15.3.1.F.5 rather than TS 15.3.1.F.4 4. CL-1D, Step 2.24, should reference 15.3.6.A.1 rather than 15.6.3.A.a 5. OM-4.2.5: "Check boric acid system piping temperatures (all > 145 F)," surveillance requirement of temperatures > 145 F is incorrect - should check storage tank and piping temperatures > Table 15.3.2-1 temperature. Also, TS reference should be Table 15.4.1-2 Item 20 rather than Item 21. "Check waste distillate tank discharge flow meter..." TS reference should be Table 15.7.4-1 Item 1.d rather than Table 15.7.4-2 Item 1.d

All references to TS Section 15.4.4 are incorrect. "BAST isolation valves," should reference TS 15.4.5.II.B.2 rather than TS 15.4.5.II.B.4 "Test boric acid piping heat tracing circuit operability," should be deleted. "Verify containment purge supply and exhaust isolation valves are locked shut," TS reference should be Table 15.4.1-2 Item 23 rather than Item 25 "Fire suppression water system pump capacity test," should reference TS 15.4.15.A.1.c rather than 15.4.15.1.c "Fire suppression water system flow test," references nonexistent TS 15.4.15.A.5 "Containment fan cooler units," should reference TS 15.4.5.I.C.1 "Accumulator check valves," references nonexistent TS 15.4.5.II.B.3 "Evaluate integrity of post-accident recovery system outside containment," should reference Table 15.4.1-2 Item 22 rather than Item 24 "Complete cycle of PORV block valves," should reference TS Table 15.4.1-2 Item 21a rather than Item 23 "Verify charging pump operability," should reference TS Table 15.4.1-2 Item 31 rather than Item 33

"Full stroke test of atmospheric steam dumps," should reference TS Table 15.4.1-2 Item 28 rather than Item 30 "Check 120 Vac instrument buses," should not reference CR Shift Log (PBF-2034/2035, 2040/2041) or CR CSD Log (PBF-2038/2039). Also, TS reference should be Table 15.4.1-2 Item 26 rather than Item 28 "Verify crossover steam dump valve operability," TS reference should be Table 15.4.1-2 Item 29 rather than Item 31 "Verify 100 kW of PZR heaters available," TS reference should be Table 15.4.1-2 Item 30 rather than Item 32 "Verify operability of potential dilution in progress alarm," TS reference should be Table 15.4.1-2 Item 32 rather than Item 34 "Check iodine and particulate continuous air sampler on purge stack," should reference TS Table 15.7.4-2 Item 4.d rather than Item 4.e 1. TS 15.4.11.2+3 not referenced in TS-9 or ORT-3 2. TS Tests related to fire suppression and detection systems do not have explicit references to the TS requirements they satisfy. 3. RMSASRB CI RE-305 should reference TS 15.3.1.D.7 4. PBF 2031, "Auxiliary Building Shift Log," should read "Boric Acid Piping Temperature" rather than "Boric Acid Heat Tracing Recorder" for Instrument TR-4177

Maintenance 1. ICP-4.27, Rev 10, Step 2.1.1, contains an erroneous

reference to TS Table 15.4.1-1 Item 1 2. RMP-9071, Rev 2, Step 2.1, should reference TS Table 15.4.1-1 Item 13 rather than Items 36, 37a and 37b 3. Most RMPs contain no references to implemented Technical Specifications

HP/Chemistry 1. EPMP-1.1 and 1.2 should reference TS Table 15.4.1-1 Item 29 rather than Item 30 2. HPCAL-1.1 should reference Table 15.4.1-1 Item 29 rather than Item 27 3. HPIP-7.51 should reference the individual Specifications implemented Significance Violation of NP 1.2.1, Step 3.1, and NP 1.1.3, Step 5.1.2.

STATUS UPDATE:

SCREENED BY :	DATE: 03/24/97
REGULATORY REPORTABLE..... (Y/N) : N	TS VIOLATION..... (Y/N) : N
10 CFR 21..... (Y/N) : N	TS LCO..... (Y/N) : N
OPERABILITY IMPACT PER TS. (Y/N) : N	JCO REQUIRED..... (Y/N) : N
MSS REVIEW..... (Y/N) : N	SCAQ..... (Y/N) : N
OPERABILITY DETERMINATION. (Y/N) : N	COMMITMENT..... (Y/N) : N

SUPPORTING DETERMINATIONS:

These are administrative discrepancies between Technical Specifications and various procedures which are currently in use. None of these discrepancies has lead to any components being classified as inoperable or OOS. They are all administrative in nature and will be repaired through procedure revisions. No immediate operability or reportability issues are present at this time.

REFERENCES:

VARIOUS (SEE DESCRIPTION)

TRENDING INFORMATION:

WHEN : FIRST QUARTER OF 1997

NON-OUTAGE

WHO : OPERATIONS

SITE ENGINEERING

MECH AND ELEC MAINTENANCE

WHY : ADMINISTRATIVE CONTROLS (SPAC) CONTAINED A TECHNICAL ERROR

WHAT : REGULATORY DOCUMENT - TECHNICAL SPECIFICATION RELATED

PBNP ADMINISTRATION PROCEDURE

OPERATIONS PROCEDURE

HEALTH PHYSICS PROCEDURE

MAINTENANCE PROCEDURE

SYSTEM: NOT SYSTEM RELATED

ACTIONS	PRI	ACTION STATUS	RESPONSIBLE PERSON	DUE DATE
1	-100	RECEIVE ASSIGNMENT		
2	-100	RECEIVE ASSIGNMENT		
3	-100	ACTION NEEDED		
4	-100	RECEIVE ASSIGNMENT		

ACTION ITEM STATUS REPORT

PAGE 1
03/25/97

***** Responsible Person:
* Trkid: CR 97-0831 * Urgency: NO DUE DATE ASSIGNED
* Action Number: 1 * Work Priority: -100

Activity Pending is: RECEIVE ASSIGNMENT

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

Procedures Have Missing, Incorrect And/Or Inconsistent References To
technical SpecificationsReview the procedures listed in the description section of the CR parent
record under Operations for adequacy of providing the correct references
to Technical Specifications. Make revisions to procedures as necessary.

(per 3/12/97 morning meeting discussions)

-----DATES-----

Source Record: 03/11/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due:
Action Create: 03/24/97	Orig Eval Due:	Orig CA Due:
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

-----REFERENCES-----

VARIOUS (SEE DESCRIPTION)

-----MISCELLANEOUS-----

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

ACTION ITEM STATUS REPORT

PAGE 1
03/26/97

***** Responsible Person:

* Trkid: CR 97-0831 *
* Action Number: 2 *

Urgency: NO DUE DATE ASSIGNED

Work Priority: -100

Activity Pending is: RECEIVE ASSIGNMENT

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

Procedures Have Missing, Incorrect And/Or Inconsistent References To
technical SpecificationsReview the procedures listed under the Engineering section of the CR
parent record description for adequacy of listing the correct references.
Make revisions to procedures as necessary.

(per 3/12/97 morning meeting discussions)

-----DATES-----

Source Record: 03/11/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due:
Action Create: 03/24/97	Orig Eval Due:	Orig CA Due:
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

-----REFERENCES-----

VARIOUS (SEE DESCRIPTION)

-----MISCELLANEOUS-----

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

ACTION ITEM STATUS REPORT

PAGE 1
03/26/97

***** Responsible Person: WILLIAM HEINSON
* Trkid: CR 97-0831 * Urgency: NO DUE DATE ASSIGNED
* Action Number: 3 * Work Priority: -100

Activity Pending is: ACTION NEEDED

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

Procedures Have Missing, Incorrect And/Or Inconsistent References To technical Specifications

Review the procedures listed under Maintenance of the description section of the parent CR record for adequacy of listing the correct references. Make necessary procedure changes as necessary.

(per 3/12/97 morning meeting discussions)

-----DATES-----

Source Record: 03/11/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due:
Action Create: 03/24/97	Orig Eval Due:	Orig CA Due:
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

(03/25/97 Issued to Group: MSV

(03/25/97) Received Action into Group: MSV
Responsible Person:

-----REFERENCES-----

VARIOUS (SEE DESCRIPTION)

-----MISCELLANEOUS-----

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

ACTION ITEM STATUS REPORT

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***** Responsible Person: *****
* Trkid: CR 97-0831 * Urgency: DUE IN 31-60 DAYS
* Action Number: 4 * Work Priority: -100

Activity Pending is: ACTION NEEDED

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

Procedures Have Missing, Incorrect And/Or Inconsistent References To technical Specifications

Review the procedures listed under the Health Physics area of the CR parent record description section for adequacy in listing the correct references. Make procedure changes as necessary.

(per 3/12/97 morning meeting discussions)

-----DATES-----

Source Record: 03/11/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 05/09/97
Action Create: 03/24/97	Orig Eval Due:	Orig CA Due: 05/09/97
Action Closed:	Eval Done:	Corr Act Done:

-----PEOPLE-----

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

-----UPDATE-----

(03/26/97 Received Action into Group: HP
Responsible Person: Due Date: 05/09/97

-----REFERENCES-----

VARIOUS (SEE DESCRIPTION)

-----MISCELLANEOUS-----

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

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

Commitment Description

Complete a review of Unit 2 administrative controls implementing or referencing Technical Specifications to ensure Technical Specification requirements are appropriately reflected in the administrative controls.

The scope of this review will be examining the identified documents for accuracy and compliance with requirements, per the criteria in the above paragraph. Should this review identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the review will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

This commitment is also a subset of Enforcement Conference Commitment Item # 3.

Review Methodology

The Independent Review of Restart Commitment #7 was performed in conjunction with procedure reviews performed for the Independent Review of Restart Commitment #8. Restart Commitment #8 conducted a review of representative Operations Technical Specifications Tests (TSs), Inservice Tests (ITs) and Operations Refueling Tests (ORTs). These documents were also reviewed for appropriate references to the Technical Specifications. The documents include:

Technical Specifications Tests

TS-10A, U2 TS-72
TS-3A, U1 TS-81
TS-84 TS-34 U2

Inservice Tests

IT-03 U1 IT-07
IT-06 U2 IT-10
IT-09A U2 IT-11
IT-13 U2 IT-65 U2
IT-40 U1 IT-90 U1
IT-215 U2 IT-335 U2
IT-536 U2 IT-755 U2
IT-765 U2 IT-295A U2

Operations Refueling Tests

ORT-3 ORT-12
ORT-6 ORT 15
ORT-11 ORT-66A
ORT-33 ORT-80
ORT-68 Appendix G
ORT-73 Appendix W

Since the Technical Specifications Testing category primarily deals with satisfying the surveillances mandated by PEMP Technical Specifications, Independent Review of this category for Restart Commitment #7 was expanded beyond the above listed TS surveillance procedures to include all TS tests (total 46).

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

WE Licensing personnel prepared a database spreadsheet of PBNP Technical Specifications which are verified by procedures, checklists, and other applicable verifying documents. This database spreadsheet is contained in the NPL 97-0048 Memo from Dave Weaver to John Palmer, dated 2/28/97, titled "Evaluation of PBNP administrative Controls Implementation of technical Specifications".

Review Results

The following is a listing of the procedures reviewed along with observations of the independent review.

Technical Specifications Tests

1. TS-3 U1 Main Turbine Stop and Governor Valves with Turbine Trip Test (Quarterly)

TS 15.4.1.A (Table 15.4.1-1 Item 42) appropriately cited in procedure PURPOSE.

TS 15.4.1.B (Table 15.4.1-2 Item 18) appropriately cited in procedure PURPOSE.

2. TS-3A U1 Turbine Trip Test (Monthly)

TS 15.4.1.A (Table 15.4.1-1 Item 42) appropriately cited in procedure PURPOSE.

3. TS-4 U2 Main Turbine Stop and Governor Valves with Turbine Trip Test (Quarterly)

TS 15.4.1.A (Table 15.4.1-1 Item 42) appropriately cited in procedure PURPOSE.

TS 15.4.1.B (Table 15.4.1-2 Item 18) appropriately cited in procedure PURPOSE.

4. TS-4A U2 Turbine Trip Test (Monthly)

TS 15.4.1.A (Table 15.4.1-1 Item 42) appropriately cited in procedure PURPOSE.

5. TS-5 U1 Bi-Weekly Rod Exercise Test

TS Table 15.4.1-2 Item 10 appropriately cited in procedure PURPOSE.

6. TS-6 U2 Bi-Weekly Rod Exercise Test

TS Table 15.4.1-2 Item 10 appropriately cited in procedure PURPOSE.

7. TS-9 Control Room Heating and Ventilation System Monthly Checks

Procedure PRECAUTIONS AND LIMITATIONS states that "Operation of this equipment is a Technical Specifications Requirement," yet does not specify which TS in the procedure PURPOSE.

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

8. TS-10 Local Leak Test of Containment Personnel Hatches

TS cited in procedure PURPOSE and PRECAUTIONS AND LIMITATIONS (2.2) do not match up to actual TS. TS Section 15.4.4 doesn't set forth leakage criteria - TS 15.3.6 does.

9. TS-10A U1 Containment Airlock Door Seal Testing

Procedure PURPOSE does not refer to Technical Specifications and should for consistency with other procedures.

10. TS-10A U1 APP A Vacuum Pump Calibration

N/A

11. TS-10A U1 APP B Hatch Door Seals

N/A

12. TS-10A U2 Containment Airlock Door Seal Testing

Unlike TS-10A U1, TS-10A U2 procedure PURPOSE references TS 15.4.4. However, TS 15.3.6 should also be appropriately referenced.

13. TS-10A U2 APP A Vacuum Pump Calibration

N/A

14. TS-10A U2 APP B Hatch Door Seals

N/A

15. TS-30 U1 High and Low Head Safety Injection Check Valve Leakage Test (Cold Shutdown)

TS 15.3.16 and 15.4.16 appropriately cited in procedure PURPOSE.

16. TS-31 U2 High and Low Head Safety Injection Check Valve Leakage Test (Cold Shutdown)

TS 15.3.16 and 15.4.16 appropriately cited in procedure PURPOSE.

★ 17. TS-32 Safety Valve Position Verification - Subcooling Margin Computing System - Containment Purge Valve Position (Monthly)

Table 15.4.1-1 Items 40 and 41 appropriately cited in procedure PURPOSE.

Table 15.4.1-2 Item 23 appropriately cited in procedure PURPOSE.

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

18. TS-33 U1 Surveillance Testing: Containment Accident Recirculation Fan-Cooler Units (Monthly)

TS 15.3.3.B.2.a, 15.4.5.1.C.2, and ASME Section XI appropriately cited in procedure PURPOSE.

19. TS-34 U2 Surveillance Testing: Containment Accident Recirculation Fan-Cooler Units (Monthly)

TS 15.3.3.B.2.a, 15.4.5.1.C.2, and ASME Section XI appropriately cited in procedure PURPOSE.

20. TS-35 U1 Local Leak Test of Containment Purge Valves

TS 15.4.4.II does not now apply to testing of Containment Purge Valves.

21. TS-36 U2 Local Leak Test of Containment Purge Valves

TS 15.4.4.II does not now apply to testing of Containment Purge Valves.

22. TS-37 U1 Containment Spray Nozzles Check (Frequency of Less than or Equal to Five Years)

TS 15.4.5.1.B.3 appropriately cited in procedure PURPOSE.

23. TS-38 U2 Containment Spray Nozzles Check (Frequency of Less than or Equal to Five Years)

TS 15.4.5.1.B.3 appropriately cited in procedure PURPOSE.

24. TS-39 U1 Main Steam Isolation Valves Operability Trip Test

TS 15.4.7 and ASME Section XI appropriately cited in procedure PURPOSE.

25. TS-40 U2 Main Steam Isolation Valves Operability Trip Test

TS 15.4.7 and ASME Section XI appropriately cited in procedure PURPOSE.

26. TS-41 U1 Cross Over Steam Dump (Quarterly)

TS Table 15.4.1-2 Item 29 appropriately cited in procedure PURPOSE. TS 15.3.4.E should also be cited in the PURPOSE.

- * 27. TS-42 U2 Cross Over Steam Dump (Quarterly)

TS Table 15.4.1-2 Item 29 appropriately cited in procedure PURPOSE. TS 15.3.4.E should also be cited in the PURPOSE.

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

28. TS-43 Pressurizer Heater Group Energy Input Test (Quarterly)

TS 15.3.1.A.6 and Table 15.4.1-2 Item 30 appropriately cited in procedure PURPOSE.

29. TS-44 U1 In-Place Testing of Main Steam Safety Valves - Refueling

TS Table 15.4.1-2 Item 12 and ANSI/ASME OM-1-1981 appropriately cited in procedure PURPOSE.

30. TS-45 U2 In-Place Testing of Main Steam Safety Valves - Refueling

ANSI/ASME OM-1-1981 appropriately cited in procedure PURPOSE. TS Table 15.4.1-2 Item 12 should also be cited in procedure PURPOSE.

31. TS-70 Monthly Diesel Engine-Driven Fire Pump Functional Test

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

32. TS-71 Monthly Electric Motor-Driven Fire Pump Functional Test

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

33. TS-72 Annual Fire Pump Capacity Test

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

34. TS-73 Monthly Fire Protection Control Valve Position Verification

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

35. TS-74 Annual Underground Fire Main Flow Test

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

36. TS-75 Biennial Service Testing of Fire Hose and Fire Hose Stations

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

- * 37. TS-76 Quarterly Automatic Sprinkler and Water Spray System Surveillance Test

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

38. TS-77 Semi-Annual Smoke Detection System Integrity Test

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

39. TS-77 APP A Non-Technical Specification Related Smoke Detector

N/A

40. TS-78 Semiannual Halon 1301 Fire Suppression System Surveillance Test

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

41. TS-79 Monthly Surveillance of Fire Hose Stations

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.

42. TS-80 Sampling of Emergency Fuel Oil Tank (T-72), Fuel Oil Storage Tanks (T-175A,B) and EDG Day Tanks (T-31A,B & T-176A,B) (Quarterly)

TS 15.3.14 should be cited in addition to TS 15.4.15 in the procedure PURPOSE.
TS 15.4.6 appropriately cited in the PURPOSE.

43. TS-81 Emergency Diesel Generator G-01 (Monthly)

TS 15.4.6.A.1, 15.4.6.A.5 and ASME Section XI appropriately cited in procedure PURPOSE.

44. TS-82 Emergency Diesel Generator G-02 Monthly

TS 15.4.6.A.1, 15.4.6.A.5 and ASME Section XI appropriately cited in procedure PURPOSE.

45. TS-83 Emergency Diesel Generator G-04 Monthly

TS 15.4.6.A.1, 15.4.6.A.5 and ASME Section XI appropriately cited in procedure PURPOSE.

46. TS-84 Emergency Diesel Generator G-04 Monthly

TS 15.4.6.A.1, 15.4.6.A.5 and ASME Section XI appropriately cited in procedure PURPOSE.

Inservice Tests

1. IT-03 U1 Low Head Safety Injection Pumps and Valves (Quarterly)

TS 15.4.5.II.A.1 and ASME Section XI appropriately cited in procedure PURPOSE.

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

2. IT-06 U2 Containment Spray Pumps and Valves (Quarterly)

TS 15.4.5.II.A.1 appropriately cited in procedure PURPOSE.

3. IT-07 Service Water Pumps and Valves (Quarterly)

ASME Section XI appropriately cited in procedure PURPOSE.

4. IT-09A U2 Cold Start Testing of Turbine-Driven Auxiliary Feed Pump and Valve Test (Quarterly)

TS 15.4.8.1.b, 15.4.8.1.c, Table 15.4.1-1 Item 20, and ASME Section XI appropriately cited in procedure PURPOSE.

5. IT-10 Test of Electrically-Driven Auxiliary Feed Pumps and Valves (Quarterly)

TS 15.4.8.1.a, 15.4.8.1.c, and ASME Section XI appropriately cited in procedure PURPOSE.
Table 15.4.1-1 Item 20 should also be cited in the PURPOSE.

6. IT-11 Spent Fuel Pool Cooling Pumps (Quarterly)

ASME Section XI appropriately cited in procedure PURPOSE.

7. IT-13 U2 Component Cooling Water Pumps and Valves (Quarterly)

ASME Section XI appropriately cited in procedure PURPOSE.

8. IT-40 U1 Safety Injection Valves (Quarterly)

ASME Section XI appropriately cited in procedure PURPOSE.

9. IT-65 U2 Containment Isolation Valves (Quarterly)

ASME Section XI appropriately cited in procedure PURPOSE.

10. IT-90 U1 Atmospheric Steam Dump Valves (Quarterly)

ASME Section XI and TS Table 15.4.1-2 Item 28 appropriately cited in procedure PURPOSE.

- 11. IT-215 U2 Safety Injection Valves (Quarterly)

ASME Section XI appropriately cited in procedure PURPOSE.

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

12. IT-295A U2 Auxiliary Feedwater System Flow Paths and Indicators

TS Table 15.4.1-1 Item 20 appropriately cited in procedure PURPOSE.

13. IT-335 U2 Containment Isolation Valves (Cold Shutdown)

ASME Section XI appropriately cited in procedure PURPOSE.

14. IT-536 U2 Containment Sump B Suction Line Leak Test (Refueling Shutdown)

ASME Section XI and TS Table 15.4.1-2 Item 22 appropriately cited in procedure PURPOSE.
Procedure refers to TS 15.4.4.IV.A.1.b. There is no such TS.

15. IT-755 U2 Flow Test of Low Head Safety Injection Check Valves (Refueling)

TS 15.3.1.A.3.b appropriately cited in procedure PURPOSE.

16. IT-765 U2 Flow Test of High Head Safety Injection Check Valves (Refueling)

ASME Section XI appropriately cited in procedure PURPOSE.

Operations Refueling Tests

1. ORT-6 Containment Spray Sequence Test Unit 2

TS 15.4.5.3.1 and 2 appropriately cited in procedure PURPOSE.

2. Appendix G Nitrogen to SI Accumulators

N/A

3. Appendix W Spray System, B Train, Containment Isolation Valves

N/A

4. ORT-11 CVCS and CC Systems Check Valve Stroke Test

ASME Section XI appropriately cited in procedure PURPOSE.

- 5. ORT-12 Fuel Transfer Tube Flange Seal

Technical Specifications are referred to generally in the procedure PURPOSE. Procedure should state specific applicable Technical Specifications in procedure PURPOSE.

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

6. ORT-15 Fuel Manipulator and Fuel Transfer System Checkout

TS Table 15.4.1-2 Item 14 appropriately cited in procedure PURPOSE.

7. ORT-33 Post-Accident Containment Ventilation System

ASME Section XI appropriately cited in procedure PURPOSE.

PURPOSE does not state which TS specifies the applicable Appendix J requirements.

8. ORT-66A Containment Pressure (P31A)

Procedure PURPOSE does not specify TS or Appendix J requirements for leak test.

9. ORT-68 Component Cooling Water to and from 2P-1A - Refueling Shutdown

Procedure PURPOSE should cite TS 15.3.6.A.1.b in addition to Appendix J.

10. ORT-73 Electrical Penetration Leak Test

Procedure PURPOSE should cite TS section for Appendix J Type B testing.

11. ORT-78 Mechanical Penetration Leak Test

Procedure PURPOSE should cite TS section for Appendix J Type B testing.

12. ORT-80 Mechanical Penetration Leak Test (P29, 13, 27)

Procedure PURPOSE should cite TS section for Appendix J Type B testing.

An Independent Review confirmed that the WEPCO "Evaluation of PBNP Administrative Controls Implementation of Technical Specifications" distributed in Memo NPL 97-0048 satisfies the Restart Commitment to perform this review. It is noted however, that the WEPCO review identified potential Technical Specification violations; identified numerous procedural deficiencies and makes a recommendation for a more thorough review of the implementing procedures for technical accuracy. From discussions with the responsible person, these identified issues are to be captured within the Condition Reporting Process and tracked to resolution.

POINT BEACH UNIT 2 RESTART COMMITMENT
INDEPENDENT REVIEW RESULTS

Commitment ID Number 7

Recommendations

Make revisions as appropriate to address the above observations. Incorporation should be tracked to schedule the necessary procedure revisions to be accomplished prior to next scheduled performance of the procedure. Some minor items may, however, be deferred until the next scheduled procedure review commensurate with their safety significance. Some of the observations discussed above may be common to other procedures which were not reviewed as part of this Independent Review. It is recommended that the necessary procedure changes be made as part of the system review of procedures which is recommended by the Independent Review of Startup Commitment #8. These discrepancies as well as those identified by the WEPCO review appear to be symptoms of a condition that will require additional review for root cause determination. This suggested root cause review is considered a long term programmatic enhancement and not a restart prerequisite.

The benefits of maintaining a database which cross-references Technical Specifications with the applicable documents that verify the Technical Specifications is obvious. As a basis document, whenever Technical Specifications are changed, the affected documents (i.e., procedures, checklists, etc.) need to be tracked for necessary changes.

Based on the Independent Review, there are no items involved with Commitment #7 which would impede Unit 2 startup.

Reviewed By: _____

ACTION ITEM STATUS REPORT

PAGE 1
03/31/97

***** Responsible Person:
* Trkid: U2R22 RESTART * Urgency: DONE
* Action Number: 15 * Work Priority: 99

Activity Pending is: DONE

ASSOCIATED WITH A COMMITMENT

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

Unit 2 Refueling 22 Startup Commitments

Prior to leaving cold shutdown, review 20% of the maintenance work orders performed since January 1, 1996 on Unit 2 or Common PSA safety significant systems (AFW, SW, EDG, IA, 4.16 kv, gas turbine, and CCW) to verify adequate PMT was performed to ensure system/component safety function.

-----DATES-----

Source Record: 01/10/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 03/21/97
Action Create: 01/13/97	Orig Eval Due:	Orig CA Due: 02/11/97
Action Closed: 03/31/97	Eval Done:	Corr Act Done: 03/19/97

-----PEOPLE-----

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

-----UPDATE-----

(01/15/97) QA has been gracious enough to take the lead on this effort. has charted a team to perform these reviews. The team is currently in the process of reviewing WO's from history.

(01/15/97 Changed Responsible Person: From to
Changed Responsible Group: From (MT) To (MSV)..

(01/20/97 Changed Responsible Person: From to

(01/30/97 Set Work Priority to 29.

(02/10/97 Changed the Due Date from: 02/11/97 to 02/28/97
Unit scheduled to leave cold shutdown in early March

(02/11/97 The 20% screening has been completed. Determinations are being made if additional evaluations are needed.

(02/26/97 Changed the Due Date from: 02/28/97 to 03/21/97
outage delays have pushed heat up to the end of march.

(03/19/97 Passed to for Verification.
The review has been completed by QAS. The surveillance report has been documented in the Quality Assurance Program Surveillance Report # S-P-97-01.

(03/28/97 Passed to for Final Close Out.
Reviewed the documentation. This item is ready for closeout.

(03/31/97 PLA Closure of Item.
QA Surveillance Report S-P-97-01 dated March 12, 1997 was performed January 20-February 10, 1997.

-----REFERENCES-----

S-P-97-01	QCR 97-0002
QCR 97-0005	QCR 97-0006
QCR 97-0007	QCR 97-0008
QCR 97-0009	QCR 97-0010
QCR 97-0011	QCR 97-0012
QCR 97-0013	

-----MISCELLANEOUS-----

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