



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

(414) 755-2321

NPL 97-0281

May 19, 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:

#21: Review open items from the design basis document development program.

We are enclosing letter NPM 97-0235 dated May 8, 1997 in support of this commitment item. Also enclosed find the independent review results.

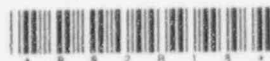
#31: Evaluate the adequacy of coordination on the 120 Vac instrument bus system through a 10 CFR 50.59 or operability determination review.

We are enclosing background and analysis and channel conflicts identified with the 120 Vac instrument bus system. Also enclosed are the independent review results.

9705280394 970519  
PDR ADOCK 05000301  
P PDR

IE26/1

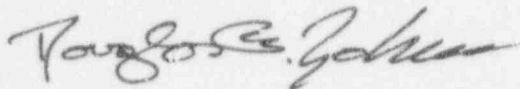
280003



NPL 97-0281  
May 19, 1997  
Page 2

Also enclosed is the Unit 2 Restart Commitment Summary all dated May 16, 1997.

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas F. Johnson". The signature is fluid and cursive, with the first name being the most prominent.

Douglas F. Johnson - Manager  
Regulatory Services & Licensing

MBK/lam

Enclosures

cc: NRC Regional Administrator

ACTION ITEM STATUS REPORT

\*\*\*\*\* Responsible Person:  
\* Trkid: U2R22 RESTART \* Urgency: DONE  
\* Action Number: 21 \* Work Priority: 99  
\*\*\*\*\*

Activity Pending is: DONE ASSOCIATED WITH A COMMITMENT

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

Unit 2 Refueling 22 Startup Commitments  
Provide documentation of the review of open items from the Design Basis Document development program.

-----DATES-----

Source Record: 01/10/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 03/17/97
Action Create: 01/13/97	Orig Eval Due:	Orig CA Due: 02/11/97
Action Closed: 05/16/97	Eval Done:	Corr Act Done: 05/09/97

-----PEOPLE-----

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

-----UPDATE-----

(02/12/97 ) Changed the Due Date from: 02/11/97 to 02/24/97  
Documentation of this item is in progress. However, the due date was tied to an original projected U2 restart date which has now slipped. The requested due date change is still prior to U2 restart.

(02/26/97 ) Changed the Due Date from: 02/24/97 to 03/06/97  
Results of Duke review of this restart item were just received on 2/25. Three Duke comments are in the process of being addressed and then our documentation of this item will be completed. Requested due date of 3/6 is in advance of projected date to leave cold shutdown.

(03/11/97 ) Preparing cover letter for transmitting package to  
Completing editorial changes on package contents and responding to one Duke comment. Request due date extension to 3/17/97.

(03/11/97 ) Changed the Due Date from: 03/06/97 to 03/17/97

(05/09/97 ) This work has been completed. Duke comments have been addressed and incorporated into Restart Item 21 package. This package was transmitted to in memo NPM 97-0235, dated May 8, 1997.

(05/09/97 ) Passed to for Verification.  
Supporting documentation was already sent to on 5/8/97.

(05/14/97 ) Passed to for Final Close Out  
Received and reviewed documentation. This item is ready for closeout.

(05/16/97 ) PLA Closure of Item.  
NPM 97-0235 dated May 8, 1997 documents closeout.

-----REFERENCES-----

NPM 97-0235 CR 96-1699

-----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

NPM 97-0235

To: \

From:

Date: May 8, 1997

Subject: Completion of Restart Item 21

Copy To: Art Reimer            File

---

The purpose of this memo is to document completion of the work on Restart Item 21. In the time period from December 11 - 20, 1996, the DBD group reviewed all 94 DBD open items associated with issued DBDs to identify any potential operability / reportability concerns with these items. These items were reviewed with an active SRO and a System Engineer. In addition, 14 open items associated with draft DBDs were also reviewed.

This review was performed as a result of questions raised by NRC OSTI inspectors and utilized a threshold for Condition Reports that was lower than that previously used by the DBD group in the past. All DBD open items associated with issued DBDs were being tracked in NUTRK and had a responsible person and a due date. However, prior to this time period, they had not received a review for potential operability / reportability issues.

As a result of this review, 38 Condition Reports were generated with 25 Prompt Operability Determinations prepared. The NUTRK list of the 94 DBD open items was provided to the NRC during the OSTI. A clean copy of that list is no longer available. A similar NUTRK list of DBD open items was printed on today's date, for reference by the reviewers of this restart item. It is provided in Attachment A. This list differs slightly from that given to the NRC OSTI inspectors in that some additional open items have been added (editorial items or draft DBD open items). A summary listing of which DBD open items had corresponding Condition Reports and Prompt Operability Determinations prepared is provided in Attachment B. No operability issues were identified. One item prompted a 4-hour report to the NRC on December 12, 1996. This was CR 96-1699, associated with DBD open item 36-005.

Attachment C lists each DBD open item and draft DBD open item that was reviewed, by its number, and provides a summary of the discussion and conclusions made by the DBD engineers, the SRO, and the System Engineer.

These attachments were reviewed by Duke Engineering. Attachment C was revised in a few cases to provide additional information to address the reviewer's comments.

Please contact me at x3367 if additional information is required.

ATTACHMENT A  
NUTRK DBD Open Item Listing as of 5/8/97

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-01-001	OPEN	05/06/94		1	1	EEM		
AFW pump flow and head requirements, and limiting value of AFW System flow requirements.								
The specified flow and head of the motor driven AFW pumps, P-38A and P-38B are 200 gpm and 1192 psi. The specified flow and head of the turbine driven AFW pumps, P-29 and 2P-29 are 400 gpm and 1192 psi. These requirements are apparently based on Westinghouse and/or Bechtel analyses (Ref 0.3.15 and 10.3.10). The analysis that developed these values have not been found.								
The scope of this open item is to include the determination of the limiting value of AFW System flow requirements. This value may have to be derived from the most sensitive accident analysis. The limiting event may be one which requires AFW System operation to achieve a rapid cooldown to mitigate the accident (e.g., SGTR).								
DBDOI-01-002	OPEN	05/06/94		1	1	EEM		
Documentation addressing AFW turbine low steam pressure operation or steam flow requirements has not been found.								
The specified range of steam conditions for the AFW pump turbine drives appears to reflect a reactor coolant temperature of greater than 500dF. No documentation addressing the ability of the turbine to operate at lower steam pressure and temperature has been found. This is important when considering scenarios (e.g., Alternate Shutdown) where the TDAFW Pump alone is relied upon to achieve cold shutdown. In these cases, the turbine/pump must perform when steam pressure falls below 115 psig (the saturation temperature corresponding to the requisite 350 dF temperature in the primary to initiate RHR). In addition, no documentation addressing the required steam flow to the turbine drives has been found.								
DBDOI-03-001	OPEN	01/11/95		1	1	EEM		
Increased likelihood of a design transient initiating a reactor trip on a loss of feedwater flow.								
As described in FSAR Section 1.2.3, the plant was designed for step load changes of 10% and step load reductions of 50% without a reactor trip (also see FSAR Section 14.1.9). However, several changes to the CS System, including isolating the hotwell level control valves, isolating the sparging flow to the heater drain tank during normal operation, and replacing the condensate pump impeller with an impeller requiring a higher NPSH have increased the likelihood of a design transient initiating a reactor trip. This trip could be caused by a loss of feedwater flow (by drawing down the hotwell and breaking the condensate pump suction) or high condenser vacuum (by covering the condenser tubes with condensate).								
DBD research did not locate current condensate pump head/flow curve or formal calculations to determine the condensate pump NPSH. It is also noted that startup testing data for Unit 1 recorded the feedwater flow response to various step transients, but did not record hotwell transients.								
DBDOI-03-002	OPEN	01/11/95		1	1	EEM		
Calculation for sizing Low Pressure Feedwater Heater Bypass Control Valve CS-2273 is not based on condensate pump runout condition.								
The Bechtel calculation for sizing Low Pressure Feedwater Heater Bypass Control Valve CS-2273 is based on the condensate pump discharge pressure during normal operation, instead of the runout condition which will occur when CS-2273 is open. This results in a pressure error of approximately 50 psi. Ginna used a 12" ball valve having a C of about 5000 vs. the C of 913 calculated by Bechtel for PBNP. The impact of this discrepancy on (1) feedwater pump NPSH when CS-2273 is opened, and (2) the decrease in feedwater enthalpy accident, should be evaluated. (It is noted that a similar Open item is repeated in Accident Analysis Basis Document Module 6.0)								
DBDOI-03-003	OPEN	01/11/95		1	1	EEM		
Seal Water Inlet Control Valves CS-2172/2278 design or performance parameters are not available.								
No information is available on the design or performance parameters for the Seal Water Inlet Control Valves CS-2172/2278. Their operation is discussed in the SGFP component instruction manual. This information might be located at Westinghouse.								
DBDOI-03-004	OPEN	01/11/95		1	1	EEM		
Feedwater control valve CS-466/476 & CS-480/481 calculations to determine size are not available								
Calculations were not found to establish the basis for the design sizing pressure drop for feedwater control valves CS-466/476 and CS-480/481. Although most CS system control valve sizing calculations were performed by Bechtel and have been retrieved, the lack of calculations in this case suggests that this information might be located at Westinghouse.								
DBDOI-03-005	OPEN	01/11/95		1	1	EEM		
Condensate cooler tube side relief valves, 1&2 CW-3505 are 1" size rather than 2" size.								
The 1-inch condensate cooler tube side relief valves currently installed (1&2 CW-3505 are smaller than the 2-inch size justified and used for MR-532 and MR-533. There has been no documentation found to support this deviation.								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDO1-05-004	OPEN	09/30/94		1	1	EEM		
<p>There are no structural calculations on file for the fuel racks</p> <p>The structural design of the new fuel racks appears to be the same as the "original" racks used for the spent fuel. However, there are no calculations on file for the original racks. The response given for Question No. 5-8 in the FFDSAR implies that calculations do exist. These calculations may be located at Westinghouse.</p>								
DBDO1-05-005	OPEN	09/30/94		1	1	EEM		
<p>Fuel handling tools and RCC change fixture design basis documentation was not located</p> <p>No documentation was located describing tool design static loads and its corresponding design basis, material requirements, design codes, safety factors or allowable stresses for which the fuel handling tools and RCC change fixture were designed. This type of information is most likely located at Westinghouse.</p>								
DBDO1-05-006	OPEN	09/30/94		1	1	EEM		
<p>Supporting calculations for fuel transfer tube characteristics were not located</p> <p>Westinghouse specification 677020 defines the fuel transfer tube diameter, material, and wall thickness, as well as the type of valve and flange required. There is considerable correspondence discussing the actual functions of the transfer tube and its relationship to containment isolation. However, no supporting calculations were located. This information may be located at Westinghouse.</p>								
DBDO1-06-001	OPEN	08/06/96		1	1	EEM		VICKIE WALTHER
<p>Design temperature of I&amp;SA piping is lower than individual components</p> <p>The Bechtel class summary identifies the design temperature of all instrument air and service air piping as 100 deg. F. Individual components in the system (compressor - 350 deg. F, dryer - 240 deg. F to 260 deg. F, afterfilter - 250 deg. F) have higher operating and design temperatures. Associated piping should reflect this in the design basis documentation. (Note: Piping and piping components can be rated as high as 125 psig and 650 deg. F per ANSI code classification.)</p>								
DBDO1-06-002	OPEN	08/06/96		1	1	EEM		
<p>Design basis not available for design temperature of IA Receivers T-338/C</p> <p>No design basis documentation was found for the design temperature of IA Receivers T-338/C. A Joy Drawing provides the design pressure value, but not design temperature.</p>								
DBDO1-06-003	OPEN	08/06/96		1	1	EEM		
<p>Design basis documentation that identifies OS-PCV-1 flow capacity not available</p> <p>No Basis for Sizing OS-PCV-1 Air Operator Regulators. No design basis documentation was found which identified the required flow capacity to meet system operational requirement or which identified the maximum valve flow capacity.</p>								
DBDO1-06-004	OPEN	08/06/96		1	1	EEM		
<p>No documented basis for I&amp;SA safety valve setpoints and capacity</p> <p>No documented basis could be found for the setpoint and capacity values of I+SA System safety valves. As these values are evaluated in the future, their basis should be captured in the DBD.</p>								
DBDO1-06-005	OPEN	08/06/96		1	1	EEM		
<p>Design requirements for I&amp;SA system various nitrogen bottles are unknown</p> <p>Design requirements could not be found for the nitrogen bottles which supply the safety-related pneumatics to pressurizer PORV operators and the pneumatic supply to the Pressurizer Spray Valve operators. Expected requirements would include design pressure/temperature, and applicable codes and standards.</p>								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-03-006	OPEN	01/11/95		1	1	EEM		
Documentation to substantiate feedwater pipe segment EB-9 design temperature is not available.								
DBD research did not locate documentation to substantiate the difference in design temperatures for feedwater pipe segment EB-9 as installed (436 deg F) and as required by early Westinghouse design criteria (the saturation temperature at the design pressure of 1100 psia, or about 556 deg F). It should be noted that the latest revision of the Westinghouse steam system design criteria only stated that steam line piping should match the steam generator shell side design conditions, and did not state why feedwater line piping only had to match operating conditions.								
Although the 436 deg F value could be justified by assuming no backleakage through the check valves, these check valves experience backleakage as confirmed by testing (also see NPM 91-1009). Further evaluation may be required to determine if this apparent discrepancy affects any pipe stress or hanger/support calculations.								
DBDOI-03-007	OPEN	01/11/95		1	1	EEM		
A calculation is required to show steam generator feed pump low suction pressure trip setting.								
A calculation is required to show the pressure margin for the trip setting for the steam generator feed pump low suction pressure trip switches PS-2196 and PS-2197. The NPSH at the feedwater pump suction (150 feet, or 78 psig @ 350 deg F) was used as the basis for the 125 psig pressure switch trip setpoint (see References 10.3.50 and 10.3.51), instead of the suction pressure at NPSH conditions (pressure switches measure pressure, not NPSH). The significance is that depending on the fluid temperature at the steam generator feed pump suction inlet, the pumps may continue to run and cavitate, even with a pressure greater than 125 psig at the pump suction. For instance, at 350 deg F and 125 psig, the fluid is almost boiling, and cannot be pumped. At 125 psig, the temperature at the steam generator feed pump inlet must be about 280 deg F to have adequate NPSH to prevent cavitation.								
It is noted that while the feedwater heater bypass valve should be open at 125 psig (tending to reduce fluid temperatures and increase pump NPSH) the effect of this may be minimal, since DBD-T-35, Module 6.0, "Reduction in Feedwater Enthalpy Incident" assumes only a 15 deg F temperature drop at the steam generator inlet when the bypass valve opens.								
DBDOI-03-008	OPEN	01/11/95		1	1	EEM		
CS gland steam and air ejector condensers may be subjected to flow rates exceeding their design limits								
The CS System required a 500 gpm bypass line around the gland steam and air ejector condensers to keep the flow through these condensers below their design limits. This bypass is currently isolated. The significance of this isolated line is that (1) the condensers may be passing a flow that exceeds their design limits and (2) the balance of flows through other portions of the system may not be as originally intended.								
DBDOI-03-009	OPEN	01/11/95		1	1	EEM		
Feedwater regulating valves may be unable to pass 1.05% of maximum calculated flow during transients								
Modifications replacing the original feedwater regulating valves with valves with less capacity did not recognize a system design basis to provide 1.05% of maximum calculated flow during transients. The significance of this discrepancy is that the system generator low-low setpoint could possibly be reached during transients when not expected.								
DBDOI-05-001	OPEN	09/30/94		1	1	EEM		
Unable to locate a calculation addressing convective cooling of fuel assemblies in the fuel transfer conveyor basket								
Although design requirements to support convective cooling of fuel assemblies in the fuel transfer conveyor basket were specified in the Westinghouse specification, no calculation has been located. The required values, associated calculations and further description of this requirement may be located at Westinghouse.								
DBDOI-05-002	OPEN	09/30/94		1	1	EEM		
Addendum specification to Westinghouse specification 677020 has not been located								
Westinghouse specification 677020 for the Fuel Transfer System states that this specification is to be used with an addendum specification covering requirements for an individual plant. This addendum specification has not been located, but may be located at Westinghouse.								
DBDOI-05-003	OPEN	09/30/94		1	1	EEM		
No design calculations were located for the New Fuel Storage area								
No design calculations were located for the New Fuel Storage area. Some information exists, however, which implies that the raised floor system is designed in accordance with the applicable structural design criteria.								



TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-06-006	OPEN	08/06/96		1	1	EEM		
Design requirements for I&SA air-operator accumulators are unknown								
Design requirements could not be found for the instrument air accumulators which supply the non-safety-related pneumatics to MSIV operators and Purge Supply and Exhaust Valve boot seals.								
DBDOI-06-007	OPEN	08/15/96		1	1	EEM		
Write correct function wording in section 3.28 of DBD-06								
Correct function wording in section 3.28 of DBD-06 based on WE response to SOER 82-6 dated 5-28-82. This correction is based on the Reviewers Initial Disposition of DBDOI-06-006.								
DBDOI-09-001	OPEN	01/19/96		1	1	EEM		
Adequate design basis information for valve RC-597 could not be located								
Adequate design basis information for valve RC-597 could not be located. Westinghouse Valve Data Sheet 4 of E-Spec G-676258 indicates a 3/8" solenoid valve, but the data column has been crossed out on Revision No. 2. The CHAMPS Data Base was reviewed, but did not provide any additional information on these valves. The P-ID Drawings 541F091 and 541F445 also show the valve as a solenoid valve.								
DBDOI-09-002	OPEN	01/19/96		1	1	EEM		
Proprietary Calcs listed in the WCAP-13513 could not be obtained								
Due to the proprietary nature of the Westinghouse calculations listed in the WCAP-13513, they could not be obtained to be listed and summarized in Section 9.0 of the DBD. The calculations in question are RFS-W-411, RFS-W-157, RFS-kw-495, Revised Reactor Coolant Temperatures, RFS-W-346, RFS-W-561, RFS-W-876, and CPS-68-41.								
DBDOI-09-003	OPEN	01/19/96		1	1	EEM		
Review MR 94-083 & 94-084 for their effect on Revision 1 of the DBD								
Modification Requests MR 94-083 (Unit 1) and 94-084 were installed in 1995 to re-tube the 3/8 inch stainless steel delay coil associated with SC-955 to place it upstream of SC-955. Since this installation occurred after the cut-off date, the effect of the change has not been incorporated into Revision 0 of this DBD. However, these MR's should be reviewed for their effect in Revision 1.								
DBDOI-09-004	OPEN	03/10/97		1	1	EEM		
EDITORIAL. DBD-09 page 4-164 needs to show proper MOB tag for respective valves								
Based on field verification and references, below(4.14), page 4-164 of DBD-09 needs to be revised to show proper MOB tag for the specific valve:								
PBNP tag NO.		2-Train Emergency Bus						
RC-570A...		A(1MOB-372)						
DBDOI-09-005	OPEN	03/10/97		1	1	EEM		
PBNP special assessment S-A-9701 identified several discrepancies between DBD-09 and the Plant								
The following is extracted from page 4 of S-A 97-001 dated February 21, 1997								
* RC-500 reactor head vent is incorrectly shown shut on DBD Figure 1-1.								
* RC-535 Pressurizer to gas vent system isolation is incorrectly shown shut on DBD Figure 1-1.								
* Inservice test documentation for the subject containment isolation valves was found to agree with the design basis requirements for valve stroke time limits. However, one discrepancy was identified in the procedure establishing the Pressurizer safety valve set pressure and leakage criteria(RMP 9054-1, "Pressurizer Safety Valve Removal and Installation"). The procedure statement that valves shall be leak tight@ 90% of set pressure (2237 psig) is not consistent with the DBD (limit of 10 bubbles/min. at 8% less than set pressure, i.e., 2285 psig). Additionally when calculating percentages of valve set pressure, set pressure should first be converted to psia. Apparently this was not the case in establishing the values in Attachment C. The error introduced by the incorrect method is only noticed in the 2237 psig value (correct value is 2235 psig). Any error which could have been introduced in the allowable set pressure values for the valves (0.45 psi) is not significant.								

TRXID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBD01-12-001	OPEN	02/07/95		1	1	EEM		
<p>The required flow throttling characteristics of SW-2818 A/B could not be found</p> <p>The required flow throttling characteristics of SW-2818 A/B could not be found.</p>								
DBD01-16-001	OPEN	05/13/96		1	1	EEM		
<p>Condition Report (CR)96-264 should be reviewed when writing EDG DBD-16</p> <p>Condition Report (CR)96-264 should be reviewed when writing the EDG Design Basis Document (DBD-16) to capture any impact this CR has on the EDG's design operating frequency. DBD 16 should include a discussion on EDG maximum design frequency which must be low enough to ensure that connected loads will not be disconnected by the operation of overcurrent protection devices (motor power and current increases with system frequency).</p>								
DBD01-17-001	OPEN	03/29/95		1	1	EEM		
<p>Vital 120 VAC System design minimum and maximum voltages could not be determined.</p> <p>Vital 120 VAC System design minimum and maximum voltages could not be determined. System design voltages should be based on the ratings of connected loads. A study or calculation should establish which load(s) are sensitive to voltage variations and determine corresponding system voltages to ensure the ratings for these loads are not exceeded. 480/4160 VAC and 125 VDC voltage studies (WE Calculations N-93-002, N-93-056-060, N-94-081) have used this process to evaluate maximum and minimum voltages for these systems. A similar study/calculation to determine specific maximum and minimum Vital 120 VAC System voltages does not exist. These load studies should establish: Inverter Maximum and Minimum design output voltage and Instrument Bus Maximum Design Voltage Ratings.</p>								
DBD01-17-002	OPEN	03/29/95		1	1	EEM		
<p>Load study to evaluate the maximum load carried by Instrument Buses and Instrument Bus Inverters does not exist</p> <p>A load study to evaluate the maximum load carried by Instrument Buses and Instrument Bus Inverters does not exist. This load study would verify that these components are adequately sized.</p>								
DBD01-17-003	OPEN	03/29/95		1	1	EEM		
<p>Documentation could not be found to establish the maximum allowed instrument bus static transfer switch "transfer time"</p> <p>Documentation could not be found to establish the maximum allowed instrument bus static transfer switch "transfer time". The "transfer time" must be less than or equal to the maximum time that power to an RPS channel can be interrupted without causing a trip. See Section 3.3.1 of DBD-17 for additional discussion.</p>								
DBD01-17-004	OPEN	03/29/95		1	1	EEM		
<p>A formal transformer tap setting calculation to determine the tap setting for the Alternate Source Transformer (XY-08) could not be located.</p> <p>A formal transformer tap setting calculation to determine the tap setting for the Alternate Source Transformer (XY-08) could not be located. An informal calculation (which was not documented) determined that the transformer tap should be set to maintain a transformer output voltage of 126 VAC (see Vital 120 VAC Validation Attribute 3.3). However, a formal load study/calculation should be performed to document that adequate voltage exists at the terminals of Vital 120 VAC system loads when supplied by the Alternate Source Transformer (based on this tap setting), assuming worst case Alternate Shutdown System voltages.</p>								
DBD01-17-005	OPEN	03/29/95		2	2	EEM		
<p>PBNP FPER Tables 4.5-1 and 4.5-2 do not list Y-02 as a safe shutdown component even though it is listed as a safe shutdown "power source".</p> <p>PBNP FPER Tables 4.5-1 and 4.5-2 do not list Y-02 as a safe shutdown component even though it is listed as a safe shutdown "power source". Additionally, these tables do not include the instrument bus inverters that supply power to the safe shutdown instrument bus (1/2-DY01, 1/2-DY02, and 1/2-DY03). The FPER should be revised to include 1/2-Y02, 1/2-DY01, 1/2-DY02, and 1/2-DY03 as safe shutdown components.</p>								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-17-006	OPEN	03/29/95		1	1	EEM		
Validation of Vital 120 VAC System harmonic distortion determined that the total harmonic distortion at the output of the Elgar 1 Inverters (1/2-DY03, 1/2-DY04, DY0C, and DY0D) exceeds 5% (maximum specified value). However, this distortion is constant and has not historically adversely affected instrument bus loads. A formal evaluation should be performed to justify Vital 120 VAC System operation above maximum specified harmonic distortion levels. See DBD-17 (Section 2.2.6) and the Vital 120 VAC Validation Report (Attribute 1.5) for additional details.								
DBDOI-17-007	OPEN	03/29/95		1	0	EEM		
The instrument bus inverters are load tested below both their rated capacity and normal loading. Validation of this item could not identify the basis for these test values. See DBD-17 (Section 6.1) and the Vital 120 VAC Validation Report (Attribute 2.5.8) for additional details.								
DBDOI-18-001	OPEN	01/30/97		0	0	EEM		
Unclear if 13.8 KVAC system must always be operated to ensure it provides power to two independent circuits. As discussed in the 13.8 KVAC System DBD (section 2.2.5), the 13.8 KVAC System is designed to provide power to onsite safety-related buses via two independent circuits. However, it is not clear whether or not the 13.8 KVAC System must always be operated (without being in an LCO) in a manner which will ensure that it provides power to two independent circuits. Two different interpretations have been taken concerning operation if an HVSAT is taken out of service. A. PBNP Technical Specification 15.3.7.A.1 does not allow a reactor to be taken critical without either its HVSATs in service or the opposite unit HVSAT in service and the gas turbine generator operating. Since no other technical specifications address operation / action with a loss of one HVSAT, current interpretation of PBNP's technical specifications require shutting down the associated unit immediately upon loss of an HVSAT if G05 cannot be operated (Ref.1). B. Technical Specification 15.3.7.B.1 does not specifically limit reactor operation or require that the gas turbine generator be placed in service if only the one HVSAT is available. Some interpretations of this Technical Specification have been that both PBNP units can be operated without restrictions upon a loss of an HVSAT (regardless of G05 operation) (Refs. 2, 3, 4). Technical Specifications should be clarified/modified to avoid possible misinterpretations of technical specifications and/or an unnecessary plant shutdown. A possible solution would be to place the affected unit in a 7 day LCO if an HVSAT became inoperable without G05 available (similar to LCOs for a diesel generator out of service or standard technical specifications for offsite power supplies). See Sections 2.2.5 and 5.1 of the 13.8 KVAC DBD (Ref. 5) for additional discussion.								
DBDOI-18-002	OPEN	01/30/97		0	0	EEM		
Calculations of 13.8 KVAC worst case bus loading have not been performed. Formal calculations or load studies detailing and evaluating worst case (maximum) High Voltage Station Auxiliary Transformer or 13.8 KVAC bus loading have not been performed. Worst case loading conditions were identified in Sections 3.1.2 and 3.2.2 of the 13.8 KVAC DBD (REF. 1). The validation of this DBD (validation attributes 2.3 and 3.1) indicated that loading during these conditions would be below the rating of these components (Ref. 2).								
DBDOI-18-003	OPEN	01/27/97		0	0	EEM		
Need to determine if 13.8 KVAC breakers H52-22 & H52-32 should be opened during a fire in the 4160 VAC switchgear room. Validation of the 13.8 KVAC DBD revealed that 13.8 KVAC Circuit Breakers H52-22 and H52-32, which supply power to 4160 VAC buses A03 and A04 (via 1/2 X04), are NOT opened (by procedures) during a 4160 VAC switchgear room fire. A evaluation should be performed to determine whether or not these circuit breakers should be opened to isolate electrical power to 4160 VAC buses during a fire in the 4160 VAC switchgear room. See 13.8 KVAC DBD Validation Attribute 1.7 (Ref. 1) for additional discussion.								
DBDOI-18-004	OPEN	01/27/97		0	0	EEM		
Documentation evaluating required minimum G05 capacity could not be found. A load study or calculation evaluating exactly what the minimum required G05 capacity should be to satisfy its design functions could not be found. G05 must have sufficient capacity to perform the capability requirements identified in Section 3.3.1 of the 13.8 KVAC DBD (Ref. 1). See Section 3.3.1 of the 13.8 KVAC DBD for additional discussion.								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-18-006	OPEN	01/27/97		0	0	EEM		
Recommend G05 operating instruction state voltage and frequency operating limits.								
Validation of the 13.8 KVAC DBD indicated that there are no 13.8 KVAC System voltage and frequency operating limits when controlled by the Gas Turbine Generator (i.e. during a SBO or 4160 VAC switchgear room fire with offsite power not available). Operating Instruction 110 provides guidance to initially set voltage and frequency at 13.8 KVAC and 60 Hz. However, guidance requiring voltage and frequency to be maintained at a specific value or range could not be located. Recommend that this operating instruction be modified to provide voltage and frequency ranges that ensure 13.8 KVAC System design voltage and frequency limits are not exceeded. See Section 2.2.1 and 2.2.2 of the 13.8 KVAC DBD (Ref.2) for 13.8 KVAC design voltage and frequency ranges. See 13.8 KVAC DBD Validation Attribute 1.1 and 1.2 for additional discussion.								
DBDOI-18-007	OPEN	01/27/97		0	0	EEM		
Documentation establishing minimum 13.8 KVAC operating voltage could not be located.								
A calculation or analysis to determine the minimum design operating voltage for the 13.8 KVAC System could not be located. 13.8 KVAC minimum design operating voltage should be based on ensuring that 4160 VAC degraded voltage relays do not actuate during a worst case loading condition. Recommend that a formal 13.8 KVAC (and 345 KVAC) minimum voltage analysis/calculation be performed. See Section 2.2.2 of the 13.8 KVAC DBD (Ref. 1) and Section 3.2.1 of the 345 KVAC DBD (Ref. 2) for specific minimum voltage conditions that must be considered by this analysis.								
DBDOI-18-008	OPEN	02/05/97		1	1	EEM		
MR 96-048 & MR 96-063 has changed 13.8 KV system to accomodate new A8BSF6 breakers								
MR 96-048 and MR 96-063 has changed the 13.8 KV and 345KV systems to accomodate new A8B SF6 345KV breakers. Added new load on 13.8KV. Added breaker ratings on 345 KVAC system. 345KVAC protection scheme change for faults. New analysis 345KVAC performed. (Items pertaining to DBD-20, 345KV system, are addressed by DBDOI-20-003)								
DBDOI-19-001	OPEN	02/18/94		1	1	EEM		
125VDC (19), Applied battery float voltage not within design band levels								
The validation of battery float voltage revealed that all seven station batteries are being "floated" outside their design float voltage band. Either Operating Instruction 33 and Routine Maintenance Procedure 46 should be changed to coincide with each batteries design float voltage range or analysis should be made to determine whether each battery can be floated at a higher voltage than recommended by their manufacturer.								
RMP 46 has been updated (Rev. 1/94) to reflect the design maximum float voltages. OI-33 (which does not set the float voltage, only monitors) should still be updated.								
DBDOI-19-002	CLOSED	02/18/94	03/11/97	1	0	EEM		
125VDC (19), Batteries D-105 & D-106 design temperature range not maintained								
The Validation of battery operating temperatures revealed that batteries D-105 and D-106 cell temperatures may be maintained below their design temperature ranges. Conversation with PBNP indicates that the battery room temperatures can be expected to occasionally drop below 72 degrees F. There is sufficient enough battery capacity margin to justify revising battery sizing/capacity calculations assuming a lower temperature (approximately 65 degrees F) of the battery rooms.								
DBDOI-19-003	CLOSED	02/18/94	03/11/97	1	0	EEM		
125VDC (19), Unable to Validate DC Panelboards short circuit ratings								
DC Panelboards short circuit ratings could not be Validated due to inconsistent data from different calculations. Original sizing calculations indicate that the Panel boards are correctly sized. Recent calculations contradict some of the values from the original calculations.								
DBDOI-19-004	CLOSED	02/18/94	03/11/97	1	0	EEM		
125VDC (19), Current interrupt rating of Buss D-03 & D-04 breakers may not be conservative.								
Validation of DC circuit breaker interrupting current ratings revealed that breakers on busses D-03 and D-04 may not be conservatively rated. Either new Calculations must be performed to justify the existing ratings or the circuit breakers must be replaced.								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
-------	--------	-----------	--------	---------------	--------------	-----	-----------	---------------

DBDOI-19-005	CLOSED	02/18/94	03/11/97	1	0	EEM		
--------------	--------	----------	----------	---	---	-----	--	--

125VDC (19), Analysis needed to verify that Loads will operate at 105VDC battery terminal voltage

Analysis is needed to verify that all connected DC loads will operate when battery terminal voltage is 105VDC. Calculation N-92-100 has verified that loads will operate at the lowest battery discharge voltage expected to occur during a design discharge (>105VDC). Similar analysis is needed to determine whether 105VDC is a valid Design Minimum DC system voltage (as stated in the PSAR, battery sizing calculations, and operating procedures) or if the minimum system voltage limit needs to be raised.

DBDOI-19-006	CLOSED	08/13/96	08/22/96	1	0	EEM		
--------------	--------	----------	----------	---	---	-----	--	--

Elevated DC control voltage may cause component failures at PBNP

A plant staff review of of I+E Notice 83-08 acknowledged that elevated DC control voltage may cause component failures at PBNP. The NRC also identified this issue as EDSFI Deficiency #90-201-14. Note: This issue was evaluated separately through the condition report process (CR#'s 92-523 through 92-260). However, I recommend a separate NUTRK item be written to document close-out of this issue as it relates to Open Item #1 of the 125 VDC DBD. See the attached write-up for close-out of this NUTRK item.

DBDOI-19-007	OPEN	03/03/97		1	1	EEM		
--------------	------	----------	--	---	---	-----	--	--

During SA-A-97-01 editorial DBD errors were identified

During Special Assessment S-A-97-01, several editorial errors were found on DBD-19, "125 VDC" as follows;

With regard to battery chargers (125 VDC System), the following errors were found in the Design Basis Documentation (DBD):

1. Three NUTRK items reported as closed (in attachment A to the DBD) were actually still open awaiting supervisory acceptance.
2. A reference to Section 10.5.17 should probably be 9.5.17, since there is no Section 10 or reference 10.5.17 in the DBD manual.
3. Battery maintenance and testing procedures PMRs 9046, 92001, 92002, 92003, 92004, 92005 should be identified as RMPs 9046-1, 9200-1, 9200-2, 9200-3, 9200-4, 9200-5.
4. Battery service and performance test procedures RMPs 9201 through 9205, should be identified as 9200-1 through 9200-5, respectively.
5. Battery chargers 10-207 and 20-207 are incorrectly identified as 10-205 and 20-205, respectively.

DBDOI-19-008	CLOSED	02/05/97	03/03/97	0	0	EEM		
--------------	--------	----------	----------	---	---	-----	--	--

MR 96-051 breaker D-12-04 and D-12-16 replacement

MR 96-051 replaced breakers D-12-04 and D-12-16 to provide better protection for main control board wiring in 1AF-4002/2AF-4002 control circuits. MR 96-052 installed 15 ampere fuses in control circuits for valves 1/2AF-4000, 1/2AF-4001, 1/2MS-2019, and 1/2MS-2020 to provide better protection for main control board wiring in the circuits.

DBDOI-19-009	OPEN	03/10/97		1	1	EEM		
--------------	------	----------	--	---	---	-----	--	--

DBD-19 should state that battery chargers must be connected to 125 VDC battery in order to function

DBD-19 should note that 125 VDC battery chargers D-107, D-108, and D-109 must be connected to a battery in order to perform their function (The battery is relied on to buffer output voltage). Revise applicable DBD sections 3.1, 3.2, 3.2.2 and 5.0 to document this requirement.

DBDOI-20-001	OPEN	05/25/94		1	1	EEM		
--------------	------	----------	--	---	---	-----	--	--

345KVAC (20) Absense of evidence indicating coordination of switchyard lightning protection and equipment insulation levels.

There is no evidence of coordination of switchyard lightning protection and switchyard equipment insulation levels. Equipment in the 345KVAC switchyard should have co-ordinated surge protection and bil ratings so as to safely withstand anticipated surges due to lightning and other system transients.

DBDOI-20-002	OPEN	05/27/94		1	1	EEM		
--------------	------	----------	--	---	---	-----	--	--

345KVAC (20) Absense of calculation or document to confirm 345KVAC system fault capacity.

Calculation or Documentation to confirm the maximum 345KVAC system fault capacity, based on the current plant configuration, could not be located. The original design for the 345KVAC system assumed a maximum fault capacity of 15,000MVA, based on preliminary information.

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDUI-20-003	OPEN	02/05/97		1	1	EEM		
MR 96-048 & MR 96-063 has changed the 13.8KV and 345KV systems to accomodate new ABB SF6 breakers								
MR 96-048 and MR 96-063 has changed the 13.8KV and 345KV systems to accomodate new ABB SF6 345KV breakers. Added new load on 13.8KV. Added breaker ratings on 345KVAC system. 345KVAC protection scheme change for faults. New analysis 345KVAC performed. (items pertaining to DBD-18, 13.8KV system, are addressed by DBDUI-18-008)								
DBDOI-21-001	OPEN	07/06/94		1	0	EEM		
TRANSFORMER 2X-14 OIL TEMPERATURE MAY BE OPERATED ABOVE MAXIMUM TEMPERATURE RISE RATING								
VALIDATION OF SST TEMPERATURE REVEALED THAT TRANSFORMER 2X-14 MAY BE OPERATED ABOVE ITS MAXIMUM ALLOWABLE TEMPERATURE RISE RATING OF 65 DEG C. TEMPERATURE READINGS TAKEN ON THE TEMPERATURE GAGES MOUNTED ON THE SST INDICATED THAT TEMPERATURES HAVE EXCEEDED 65 DEG C. CONFIRMATION THAT THIS GAGE IS READING TEMPERATURE RISE, RATHER THAN HOT OIL (TEMPERATURE RISE + AMBIENT TEMPERATURE) MUST BE CONFIRMED TO VERIFY THAT TEMPERATURE RATINGS HAVE ACTUALLY BEEN EXCEEDED. SEE ATTRIBUTE 3.1 IN THE 480 VAC VALIDATION REPORT FOR ADDITIONAL DETAILS.								
DBDOI-21-002	OPEN	07/06/94		1	1	EEM		
TRANSFORMER X-08 TAP SETTING CALCULATION NOT AVAILABLE								
A TRANSFORMER TAP SETTING CALCULATION OR CONFIRMATION OF THE ACTUAL TAP SETTING FOR THE ALTERNATE SHUTDOWN TRANSFORMER (X-08) COULD NOT BE LOCATED. A STUDY/CALCULATION TO VERIFY ADEQUATE VOLTAGE AT THE TERMINALS OF SAFE-SHUTDOWN LOADS, ASSUMING MINIMUM VOLTAGE CONDITIONS (ON THE GAS TURBINE), BASED ON THE CURRENT TAP SETTING WOULD VERIFY THE TAP SETTING. DURING THE VALIDATION OF THIS ATTRIBUTE, THE ACTUAL TAP SETTING COULD NOT BE VERIFIED.								
DBDOI-21-003	OPEN	07/07/94		2	1	EEM		
LINESTARTER MCC 18-31, CUBICLE 40 MAY BE UNDERSIZED FOR ITS CONNECTED LOAD								
VALIDATION OF MCC LINESTARTER CURRENT REVEALED THAT ONE LINESTARTER (MCC 18-31, CUBICLE 40) MAY BE UNDERSIZED FOR ITS RATED LOAD. THE LINE STARTER CARRIED A 15 HP MOTOR, ALTHOUGH IT MAY ONLY BE RATED TO CARRY A 10 HP MOTOR. SEE ATTRIBUTE 3.6 IN THE 480 VAC DBD VALIDATION REPORT FOR ADDITIONAL DETAILS. (NOTE: THE AS-BUILT GROUP IS CURRENTLY VERIFYING AND ADDRESSING DISCREPANCIES WITH THE SIZING OF ALL 480 VAC LINESTARTERS).								
DBDOI-21-004	OPEN	07/12/94		1	1	EEM		
AUXILIARY ELECTRICAL SYSTEM COMPONENT IMPULSE RATING CANNOT BE DETERMINED								
SOURCE DOCUMENTATION COULD NOT BE LOCATED WHICH ESTABLISHED THE BASIC IMPULSE LEVEL RATINGS OF AUXILIARY ELECTRICAL SYSTEM COMPONENTS. THESE RATINGS SHOULD BE COORDINATED TO WITHSTAND THE EFFECTS OF LIGHTNING STRIKES OR OTHER VOLTAGE SURGES.								
DBDOI-21-005	CLOSED	07/12/94	11/22/96	1	0	EEM		
PROCEDURE FOR MAINTAINING N-93-002, N-94-009 & N-94-010 IS NOT AVAILABLE								
PBNP CALCULATIONS N-93-002, N-94-009, + N-94-010 ARE DESIGNED TO BE LIVING CALCULATIONS THAT WILL BE REVISED AS LOADS ARE ADDED OR REMOVED FROM THE ELECTRICAL DISTRIBUTION SYSTEM. SPECIFIC PROCEDURES OR GUIDELINES TO ENSURE THESE CALCULATIONS ARE UPDATED EACH TIME A LOAD IS ADDED OR REMOVED COULD NOT BE LOCATED.								
DBDOI-21-006	CLOSED	07/12/94	03/13/95	1	0	EEM		
TECHNICAL SPECIFICATION VALUE FOR 480 VAC LOSS OF VOLTAGE RELAYS TIME DELAY SETTING NEED TO BE REVISED								
TECHNICAL SPECIFICATIONS SETPOINTS (TABLE 15.3.5-1) FOR THE 480 VAC LOSS OF VOLTAGE RELAYS REFLECT THE INVERSE TIME CHARACTERISTICS OF THE ORIGINALLY INSTALLED CV-7 RELAYS ( $\approx 0.75$ SECONDS PLUS OR MINUS 10% AT 0 VOLTS, $\approx 3.5$ SECONDS PLUS OR MINUS 20% AT 90% VOLTAGE). WHEN THE RELAYS WERE REPLACED BY DEFINITE TRIP TIME DELAY RELAYS (BY MR-87-240 + MR-87-241) TO ENSURE PROPER COORDINATION WITH THE 4160 VAC LOSS OF VOLTAGE RELAYS, THE TECHNICAL SPECIFICATION SETTINGS WERE NOT CHANGED. THE MAXIMUM 3.5 SECOND TIME DELAY FOUND IN TECHNICAL SPECIFICATIONS COULD PREVENT PROPER COORDINATION BETWEEN THE 4160 VAC AND 480 VAC LOSS-OF-VOLTAGE RELAYS. (NOTE: BECAUSE THE INSTALLED 480 VAC ARE DEFINITE TRIP TIME DELAY (TIME DELAY CONSTANT REGARDLESS OF VOLTAGE SETTING), IT WOULD BE IMPOSSIBLE TO SET THEIR TIME DELAY AT 3.5 SECONDS WITHOUT VIOLATING THE 0.75 SECOND TECHNICAL SPECIFICATION REQUIREMENT).								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-22-001	OPEN	09/21/94		3	2	EEM		

Produce a formal calculation to determine the minimum design capacity for the Low Voltage Station Auxiliary Transformers, LVSAT

Formal calculations to determine the minimum design capacity for the Low Voltage Station Auxiliary Transformers (LVSATs) do not exist. From Section 4.2.5, it was determined that maximum LVSAT loading may occur following non-accident reactor trip, with the LVSAT also carrying the hot shutdown loads from the other unit. The validation of this DBD (see Ref. 1, attribute 2.2) indicated that the loading during this condition would be approximately 35500 KVA. A formal calculation should be performed to determine maximum LVSAT loading.

DBDOI-22-002	CLOSED	09/21/94	12/11/96	1	0	EEM		
--------------	--------	----------	----------	---	---	-----	--	--

Perform analysis to determine adequacy of the 4160 VAC loss of voltage relays

The Technical Specification setpoint for the 4160 loss-of-voltage relays is 3220+/-2%, which allows for a 4% safety margin below the 4160 VAC motor terminal one-minute rating (3000 VAC)(Ref. 1). This setpoint may not be sufficient to prevent connected safety-related 480 VAC motors from operating below their one-minute rating (345 VAC). 480 VAC motors will see a lower per unit voltage due to larger voltage drops. An analysis, similar to that performed by Refs. 2 and 3, WE Calc N-93-002 and N-93-098 (for the 4160 VAC degraded voltage relays) should be performed to determine the adequacy of the 4160 VAC loss-of-voltage relays. WE Calc N-94-130 will perform this analysis.

DBDOI-22-003	CLOSED	09/21/94	12/16/96	1	0	EEM		
--------------	--------	----------	----------	---	---	-----	--	--

Evaluate Operating Instruction 35 to determine if the maximum allowed safety-related bus voltage of 4500 VAC should be revised

Operating Instruction 35 (Section 11) requires that 4160 safety-related bus voltages (A05 and A06) be maintained less than 4500 VAC. 4500 VAC is above the maximum bus voltages calculated by WE Calculation N-94-081 (4437 VAC) and is above the 4160 maximum design system voltages discussed in the 4160 VAC DBD (4400 VAC). WE Calculation N-94-081 has provided justification to allow system voltages to exceed design voltages "momentarily". However, Operating Instruction 35 would allow voltages to be maintained above maximum design voltages indefinitely. Therefore, Operating Instruction 35 should be evaluated to determine whether or not it should be revised.

DBDOI-22-004	CLOSED	09/21/94	03/11/97	1	0	EEM		
--------------	--------	----------	----------	---	---	-----	--	--

The minimum required setting for the Reactor Trip on Undervoltage could not be verified.

The minimum required setting for the Reactor Trip on Undervoltage could not be verified. Table 14-3 from the PBNP FSAR lists 68% of nominal (2720 VAC) as the voltage limit assumed in the accident analysis, however, no documentation could be located to determine where this value originated. This minimum voltage setpoint is governed by assumptions made in the CLOF analysis. The UV relays must be set high enough to ensure they will actuate within 0.25 seconds of RCP bus isolation (accounting for RCP EMF voltage decay) An analysis of RCP bus voltage vs time (after bus isolation with RCPs connected to the bus) could verify that this UV setpoint will be reached within 0.25 seconds of bus isolation.

DBDOI-27-001	OPEN	12/22/94		1	1	EEM		
--------------	------	----------	--	---	---	-----	--	--

Some RPS backup trip circuits have been found during DBD preparation (Reference 1) that do not fully meet IEEE 279 criteria.

Some RPS backup trip circuits have been found during DBD preparation (reference 1) that do not fully meet IEEE 279 criteria. These exceptions were reviewed during DBD validation (Reference 2). The exceptions are not discussed in the FSAR, although compliance with IEEE 279 is a licensing commitment in FSAR Section 7.2. The FSAR should be revised to describe any IEEE 279 exceptions, including a technical justification similar to the explanation found in the RPS DBD (Reference 1).

DBDOI-27-002	OPEN	12/22/94		1	1	EEM		
--------------	------	----------	--	---	---	-----	--	--

Non-safety related circuits connected to RPS were not evaluated for adequate separation from safety-related RPS circuits.

The PBNP evaluation (Reference 1) of NRC Information Notice 91-11 was reviewed for completeness during RPS DBD validation (Reference 2). The validation concluded that non-safety-related circuits connected to the RPS were not evaluated for adequate separation from safety related RPS circuits. The conclusions of the PBNP evaluation (Reference 1) should be revisited for each of the non-safety-related RPS backup trip circuits.

DBDOI-27-003	OPEN	12/22/94		1	0	EEM		
--------------	------	----------	--	---	---	-----	--	--

Loop accuracy requirements could not be found for some RPS trip parameters

Loop accuracy requirements could not be found for some RPS trip parameters. Since loop accuracy is an input to the calculation of trip setpoints, the accuracy requirements of these trip variables should be determined, or the reason no accuracy limit is necessary should be explained in the DBD.

The affected variables are:

Steam Generator NR Level (primary trip); RCP Undervoltage (primary trip); RCP Underfrequency (backup trip); Steam Flow (backup

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
-------	--------	-----------	--------	---------------	--------------	-----	-----------	---------------

trip); Feedwater Flow (backup trip)

DBDOI-27-004	OPEN	12/22/94		1	1		EEM	
--------------	------	----------	--	---	---	--	-----	--

Each SI logic train trips both trains of RPS logic on SI actuation

Each SI logic train trips both trains of RPS logic on an SI actuation. This design exceeds the requirements of IEEE 279, and requires electrical isolation to cross-connect opposite trains of protection logic (A-to-B and B-to-A). The reason for this complicated arrangement is not known, but was challenged in several NCRs (#90-069, -074, and -075). The NCRs suggested eliminating the opposite train inputs between SI and RPS, but the decision was made to maintain the system as is "to maintain the single failure criterion during testing".

As part of the pre-OL ESFAS DBD development by Westinghouse, the DBD group should attempt to locate the specific technical basis for the doubly redundant SI-to-RCS trip logic, and determine if the opposite train inputs from SI could be eliminated without compromising nuclear safety.

DBDOI-27-005	OPEN	12/22/94		2	2		EEM	
--------------	------	----------	--	---	---	--	-----	--

Redundant RPS channels of RCS flow and pressurizer pressure transmitters share common sensing lines.

Redundant RPS channels of RCS flow and pressure transmitters share common sensing lines. Sharing sensing lines between redundant channels appears to violate the original RPS separation criteria in Reference 1. The WE response to an AEC question during FFDSAR review (Reference 2) acknowledged that the condition existed, but did not provide any justification. To avoid future licensing challenges to this arrangement, The DBD should include a technical justification for shared sensing lines between redundant RPS channels for the two primary trip variables.

DBDOI-27-006	OPEN	10/14/94		1	1		EEM	
--------------	------	----------	--	---	---	--	-----	--

Assumed accident analysis NI accuracy may not be met below some RCS temperature.

The RPS DBD validation (Reference 1) investigated the minimum allowable temperature for critical operations. PBNP Technical Specification Figure 15.3.1.1 allows criticality to occur down to 350 deg F, depending on the RCS pressure (434 deg F @ 2000 psig). The concern is that lower RCS temperatures affect nuclear instrumentation accuracy (by more attenuation), and below some RCS temperature the NI accuracy assumed in the accident analysis is no longer met. NRC Inspection Report 93-015 identified this as an unresolved inspection item (NUTRK#IR 93-015 Action 2) and the NRC recently published Information Notice 94-75 to address the minimum temperature for criticality issue. Although the NUTRK item has been closed, the NI accuracy question was not addressed. The DBD should be revised to document the PBNP position on this issue when the IEN evaluation is completed and the NRC inspection item is closed.

DBDOI-27-007	OPEN	08/25/95		1	1		EEM	
--------------	------	----------	--	---	---	--	-----	--

Definition of short duration temperature limit for Ex Core Neutron detectors

DBD section 3.2.4.0 discusses a short duration temperature limit for Ex Core Neutron Detectors of 175 deg F. A short duration is not defined. WCAP-7669 defines the short duration as 8 hours.

DBDOI-30-00	OPEN	01/03/96		1	1		EEM	
-------------	------	----------	--	---	---	--	-----	--

It is recommended that calculation N-93-033 be reperformed or voided.

Westinghouse demonstrated the ability of accident heat exchangers to remove the design heat transfer rate by performing scale-model tests using air/steam/water vapor mixtures to show that the actual heat transfer rate was consistent with computer model predictions. This was done to ensure that when plant-specific input parameters were input to the computer model, the result would lead to the selection of a conservatively sized heat exchanger. A different computer model (HOLTEC Aircool Manual) is now used to periodically verify the coil heat transfer rate.

A review of both models suggests that while both provide similar results at a containment pressure of 60 psig, the current model may be nonconservative at low containment pressures. For example, at atmospheric conditions and a 75 degF service water temperature, a heat transfer rate of 34.3x10 to the sixth Btu/hr (9.5x10 to the third Btu/sec) per fan-cooler unit was calculated by N-93-033, while FSAR Figure 14.3.4-1 lists a much lower (less than 5x10 to the third Btu/sec) heat transfer rate. This discrepancy could affect conclusions in calculation N-93-033 that all decay heat could be removed 30-minutes into a loss of coolant accident using only containment fan-coolers and RHR heat exchangers. It is therefore recommended that calculation N-93-033 either be reperformed or voided.



TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-30-002	OPEN	01/03/96		3	3	EEM		
Condensate drainage monitoring not as sensitive as described by Section 6.5 of the FSAR.								
The Containment HVAC DBD validation determined that condensate drainage monitoring sensitivity (applies to RCS leak monitoring) is not as sensitive as described by Section 6.5 of the FSAR, because "Sump A" volumes for both units are larger than assumed in the FSAR discussion (see item 1.9 of validation report for further details). It is noted that the current arrangement was specifically chosen by WE, and the discrepancy appears to be an inconsistency between the FSAR description and the plant as-built design. Accordingly, it is recommended that an evaluation be performed to determine if the less-conservative FSAR statements were used in any past evaluations related to reactor coolant system leakage.								
DBDOI-30-003	OPEN	01/03/96		1	1	EEM		
Replacement dampers installed by MRs 88-10 & 88-11 not shock wave analyzed								
Replacement Dampers installed by MRs 88-10 and 88-11 were not analyzed for their capability to withstand dynamic pressure forces from a pressure shock wave that could be encountered in VNCC System ductwork following a loss-of-coolant accident, as was a concern in the original design. A calculation, or comparison with the original design, may be required.								
DBDOI-30-004	OPEN	01/03/96		2	2	EEM		
Containment integrity accident analysis, fan cooler heat removal start time								
The containment integrity accident analysis (FSAR Chapter 14.3.4) assumes a "start" time of 60 seconds for fan-cooler heat removal, but does not state whether this is with respect to receipt of the start signal, or when full (not partial) fan cooler unit heat removal is required. However, since other FSAR sections state that 60 seconds is the time required for the delivery of the minimum flow, it can be inferred that 60 seconds is the time at which the fan-cooler units should be considered full heat sinks. It is noted that previous evaluations (see Reference 9.2.63) have not treated 60 seconds as a full heat removal limit.								
Validation of fan start times determined that current accident fan safeguards sequencing assume a start signal could reach a fan as late as 59.5 seconds after the start of an accident (see item 2.1.2 of validation report). Fan acceleration delays will result in the minimum required flow rate for heat removal being achieved approximately 5 seconds after 60 seconds. Further evaluation is therefore required to determine if sufficient margin is available in the containment integrity accident analysis to allow for fan acceleration delays.								
DBDOI-30-005	OPEN	01/03/96		1	1	EEM		
Airflows to equipment cubicles have fallen short of original required quantities.								
The containment HVAC DBD validation (item 1.2) determined that although total normal operation system flows are within design margins, airflows to equipment cubicles have fallen short of the original required quantities. Although there have been no reports of problems due to inadequate airflow, it is recommended that consideration be given towards rebalancing the system at the next available opportunity to restore flows to the original design values.								
DBDOI-30-006	OPEN	01/03/96		1	1	EEM		
Are duct sections leading to the containment dome area required for hydrogen recirculation								
Original Bechtel calculations related to the control of ductwork differential pressures following a loss-of-coolant accident did not evaluate the duct sections leading to the containment dome area. This is a concern because all other applicable ductwork was evaluated, and these particular duct segments (long length and small diameter) are susceptible to collapse. Because this ductwork may help recirculate hydrogen that accumulates in the containment dome following a loss-of-coolant accident, it is recommended that an evaluation be performed to determine whether these ducts are actually required for hydrogen recirculation.								
DBDOI-31-001	OPEN	07/06/95		1	1	EEM		
Validation of the F-16 filter flow rate revealed that the test configuration does not account for backleakage through the standby								
Validation of the F-16 filter flow rate revealed that the test configuration does not account for backleakage through the standby fan backdraft damper, and therefore the filter test measures the fan flow rate, not necessarily the filter flow rate. Depending on the amount of damper backleakage, the actual filter flow rate may be less than allowed, and the actual filter efficiency may be less than assumed in habitability calculations (see item 1.3 in the control room HVAC and Habitability Validation Report for additional details). It is noted that while the PBNP Technical Specifications (Section 15.3.12) clearly state that the required flow is fan flow, and not filter flow, the overall intent of the PBNP Technical Specification has always been adequate removal of airborne activity to insure that operator doses remain within acceptable limits. It is recommended that the current testing method be evaluated to insure that filter flow rates are within acceptable limits.								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-31-002	OPEN	07/06/95		1	1	EEM		
Control Room HVAC heat exchanger load calculations may have incorrectly estimated limiting room HVAC loads								
Validation of heat exchanger heat transfer rates revealed that some load calculations may have incorrectly estimated limiting room heating and cooling loads. It is recommended that these calculations be reviewed to determine the actual room heating and cooling loads. See items 2.3.1, 2.4.1, and 2.6.1 in the Control Room HVAC and Habitability Validation Report for additional details.								
DBDOI-31-003	OPEN	07/06/95		1	1	EEM		
Some control room HVAC habitability analysis assumptions may not be currently conservative								
Some assumptions used in the control room habitability analysis may not be currently conservative, and in some cases the direction of conservatism is not apparent without a formal calculation. Below are some examples:								
* The habitability analysis assumed an air volume of 55,195 cubic feet. The combined control room + computer room volume (as determined from TENERA calculations, see Sections 9.3 and 9.4) is currently 65,243 cubic feet. To determine whether the current total room volume is conservative may require a formal calculation.								
* The distance between the containment and outside air intake was assumed to be 124 feet in the habitability analyses, but was determined to be approximately 101.5 feet (from scale drawings) during the CR-HVAC System validation (see item 1.2). The source term originally used in Stone and Webster calculation Ur(b)-007-0 (Ref. 10.4.4) to account for containment leakage into the control room may therefore be non-conservative. A formal calculation may be required to determine the degree of non-conservatism and whether it is acceptable.								
To address these questions, individual sensitivity calculations may need to be performed, or a new formal calculation addressing control room radiological habitability to address all system configuration changes performed by MR 93-041 (Ref. 10.5.48).								
DBDOI-31-004	OPEN	07/06/95		1	1	EEM		
Control room HVAC NUREG-0737 evaluations were not applied to update Technical Specifications relating to CR-HVAC								
Because PBNP Technical Specifications relating to the CR-HVAC System (Sections 15.3.12 and 15.4.11) were not updated following evaluations required by NUREG-0737, and III.D.3.4 (see Section 3.3), a clear relationship does not exist between PBNP Technical Specifications (TS) operability requirements and system performance requirements in some cases. Below are examples:								
* A 99% filtration efficiency TS operability requirement exists on HEPA filter efficiency, even though HEPA filters are not taken credit for in radiological evaluations (see TS Sections 15.3.12.2.a and DBD Section 4.11.2).								
* TSs require laboratory charcoal adsorbent tests demonstrate a 90% methyl iodide removal efficiency, while the most recent evaluations assumed 95%. No TS operability requirements exist for elemental iodine removal, while the most recent evaluations assumed 95% (see TS Section 15.3.12.b and DBD Section 4.11.1).								
* The total pressure drop across Control Room Charcoal Filter F-16 is required by TSs to be less than 6 inches w.g., however, the DBD validation determined that this is above the highest pressure the system can achieve (see TS Section 15.4.11 and DBD Section 4.11.3).								
Consideration should therefore be given to update these sections of the PBNP Technical Specification to more closely reflect actual operability limitations on the CR-HVAC System.								
DBDOI-31-005	OPEN	07/06/95		1	1	EEM		
Control Room HVAC modifications documented by MR 93-041 were assumed to be completely installed at the time of writing DBD-31								
DBD-31 "Control Room HVAC and Habitability" was written on the assumption that all modifications documented by MR 93-041 were installed. However, this DBD was issued prior to the completion of the electrical portions of this modification (anticipated to be completed by September 1, 1995), which included revised power supplies to the C-67 panel and fans.								
DBDOI-33-001	OPEN	01/06/95		1	1	EEM		
Westinghouse documentation substantiating loads applied to structure for major NSSS Equipment is not available.								
Equipment and Structure Loads:								
Bechtel Calculations have had to be relied upon entirely for loads applied to the structure for major NSSS Equipment. No Westinghouse documentation was found to substantiate the loads used by Bechtel.								
Suggested Corrective Action:								
DBD Group determine whether Westinghouse has documentation of design loads available in their archives or if this information was communicated to Bechtel from Westinghouse during plant design.								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-33-002	OPEN	01/06/95		2	0	EEM		
<p>Bechtel Calculations 6.1.2.1, Book 26 &amp; 6.1.2.2.2, Book 29 related to design of the containment floor systems do not appear to address Interior Structure Loading:</p> <p>Bechtel Calculations 6.1.2.1, Book 26 and 6.1.222, Book 29 related to design of the containment floor systems do not appear to address seismic loads.</p> <p>The Bechtel Calculations for design of the primary and secondary shield walls do not appear to have addressed the seismic moments, shears and accelerations provided in the Bechtel Seismic Analyses in Appendix B of Reference 10.3.53.</p> <p>Bechtel Calculation 8.4.2, Book 44, provides accelerations and forces in the internal structures due to a seismic event. There is no evidence that these had been considered in the design of the floors and columns.</p> <p>Suggested Corrective Action:</p> <p>CSE review the Bechtel design calculations for the subject structures to determine if seismic loadings were appropriately considered.</p>								
DBDOI-35-001	OPEN	07/11/94		1	1	EEM		
<p>15 DEG MAXIMUM FEEDWATER TEMP REDUCTION IN FEEDWATER ENTHALPY INCIDENT</p> <p>THE MAXIMUM FEEDWATER TEMPERATURE REDUCTION ASSUMED IN THE REDUCTION IN FEEDWATER ENTHALPY INCIDENT IS 15 DEG F. THE CALCULATIONS WHICH DETERMINE THE MAXIMUM FEEDWATER TEMPERATURE REDUCTION OF 15 DEG F HAVE NOT BEEN LOCATED AND NO RECORD HAS BEEN FOUND DETAILING THE ACTUAL WORK PERFORMED. IT IS NECESSARY TO DETERMINE IF THE 15 DEG F VALUE IS STILL APPROPRIATE, GIVEN CURRENT PLANT OPERATION.</p>								
DBDOI-35-002	OPEN	05/15/95		1	1	EEM		
<p>Main feedwater isolation for the SBLOCA licensing basis accident analysis is not modeled as it would be expected to occur.</p> <p>Main feedwater isolation for the SBLOCA licensing basis accident analysis is not modeled as it would be expected to occur. Upon reactor trip coincident with a loss of offsite power, the analysis assumes 2 seconds of full main feedwater flow followed by flow which linearly decreases to zero over 5 seconds. The expected scenario would be main feedwater pump coastdown immediately upon loss of offsite power followed by complete isolation at some later time due to main feedwater regulating valve closure. The main feedwater regulating valve closes on an SI signal.</p> <p>It is not known whether the present modeling of the feedwater isolation in the SBLOCA analysis results in a conservatively small amount of flow to the steam generators. It is necessary to determine whether the expected scenario would yield more limiting analysis results.</p>								
DBDOI-35-003	OPEN	02/20/97		0	0	EEM		
<p>This POI is the result of CR 96-1753, clarify the acceptability of the main feedwater isolation assumptions for SBLOCA</p> <p>CR 96-1753 Action #1 has resulted in the creation of this POI to clarify the acceptability of the main feedwater isolation assumption for SBLOCA. Open item #1 should be closed. Clarification should be added to section 15.4.4 (IE. the main feedwater isolation assumption is based on a best estimate of actual plant performance per Westinghouse SBLOCA analysis methodology. The best estimate or nominal assumption is appropriate due to the insensitivity of the analysis results to this assumption. (clarification from Westinghouse, Mike Emery)</p>								
DBDOI-35-004	OPEN	02/05/97		0	0	EEM		
<p>DBDs T-35 module 11 and T41 should be clarified to explain why a feed water line rupture is not considered a design basis event</p> <p>DBD T-35 module 11 (LONF) Rev. 1, Section 11.1.1 footnote and DBD T41 Hazards, section on HELB should be clarified to explain why a feedwater line rupture is not considered a design basis event for Point Beach, although we have been required to evaluate the consequences of a feedwater line break inside containment as a missile/jet source (in Ref 1) and for heating of level instrumentation (in Ref 2) during a LONF event.</p>								
DBDOI-36-001	OPEN	01/02/96		1	0	EEM		
<p>Coordination of G01 and G02 supply breakers to 4160VAC buses not documented</p> <p>A calculation or analysis to show adequate coordination of the Emergency Diesel Generators G01 and G02 supply breakers to 4160 VAC buses 1(2)-A05(breakers 1A52-60, 1A52-66, 2A52-67, and 2A52-73) with A05 loads or with 1(2)-51/G01(G02) (G01 and G02 overcurrent relays) could not be located. An analysis similar to WE Calculation N-94-124 (for 1(2)-A06 supply and feeder breakers) should be performed to verify adequate coordination of these breakers (with downstream and upstream devices)&gt; See Section 3.1.1 of DBD-T-36 for additional discussion.</p>								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBD01-36-002	OPEN	01/02/96		1	1	EEM		
Perform analysis to show that supply breaker to 2-B04 coordinates with feeder breaker to MCCs B21								
WE Calculation N-92-003 shows that the supply breaker to 2-B04 (1B52-25B) does not fully coordinate with the feeder breaker to MCCs B21 (2B52-28C). MCC B21 is non-safety-related and its feeder cables may not be routed in dedicated trays. Therefore, an analysis should be performed to ensure that there does not exist a single failure that could affect MCC B21 or its feeder cable and a load fed by 2-B03 (which would affect both safety-related trains).								
Note: WE Calculation N-92-003 is being revised to reflect the new amptector devices associated with these circuit breakers. This calculation may show coordination between these circuit breakers.								
DBD01-36-003	OPEN	01/02/96		1	1	EEM		
Determine if lack of coordination associated with the B01(B02) to B03(B04) bus tie breakers is acceptable.								
WE Calculation N-92-003 shows that bus tie breakers between 1/2-B03(B04) and 1/2-B01(B02) (1B52-15C, 2B52-39C, 1B52-18C, and 2B52-26C) do not coordinate with most of their downstream feeder breakers. Since B01 and B02 are non-safety-related, their loads and associated cabling may not meet the same separation requirements that are imposed on safety related trains. To ensure that the lack of coordination associated with the B01(B02) to B03(B04) bus tie breaker is acceptable, either: (1) an analysis should be performed to ensure that a single fault in either B01 and B02 will not affect both B01 and B02 (which, due to lack of breaker coordination, could affect both B03 and B04; or (2) administrative controls should be placed on the operation of the B01(B02) to B03(B04) bus tie breaker (similar to the controls placed on the operation of the B03-B04 bus tie breaker).								
DBD01-36-004	OPEN	01/02/96		1	1	EEM		
Basis for selection of overcurrent protection devices for panels listed below could not be located.								
The original (and current) basis for the selection of overcurrent devices (ie: choosing a molded case circuit breaker over other overcurrent protection such as fuses) associated with 125 VDC panels D11, D12, D13, D14, D16, D17, D18, D19, D21, D22 and vital 120 VAC panels 1/2-Y101, 1/2-Y102, 1/2-Y103, 1/2-Y104 could not be located. Additionally, documentation of component overcurrent protection requirements required by these devices (which may have influenced their sizing/selection) could not be found. Therefore, it is unknown which design requirements with respect to component protection and/or coordination were considered when selecting these devices. Note: coordination that exists as a result of these devices has been evaluated and is discussed in Sections 3.2.1 and 3.3.1 of DBD-T-36.								
DBD01-36-005	OPEN	01/02/96		1	0	EEM		
Evaluation of breaker coordination in 120 VAC distribution panels listed below has not been performed								
An evaluation of breaker coordination between supply and branch circuit breakers in 120 VAC distribution panels 1/2-Y11, 1/2-Y21, 1/2-Y31, and 1/2-Y41 has not been performed. Supply breakers to 1Y11, 1Y31, and 1Y41 were changed from 5 to 20 Amp via MR 84-047 to allow for coordination with the installed 5 and 10 amp feeder breakers. However, a formal evaluation of coordination of these panels could not be located.								
DBD01-36-006	OPEN	01/02/96		1	0	EEM		
WE Calculation V-92-005 does not reflect the conclusions from CR94-536								
WE Calculation N-92-005 shows that breaker and fuse coordination in the 125 VDC System does not, in all cases, guarantee that isolation will occur before the loss of an entire safety-related power panel. The original and current design of the 125 VDC System assumes that any single failure could lead to the failure of a single 125 VDC train. Therefore coordination is not required unless it affects more than one 125 VDC train. A recent concern was raised that DC power cables from redundant DC trains may share non-dedicated raceways, and a common fault in the non-dedicated raceway affecting these cables could, potentially, reflect into more than one safety-related DC train. Therefore, the potential exists for a common fault in a non-dedicated raceway causing the loss of redundant DC power supplies.								
This issue was evaluated by Condition Report 94-536. This condition report concluded that cable impedances between 125 VDC buses and common cabling routing points are large enough to ensure coordination should a fault occur at the common routing point. However, this item will remain open pending a revision of WE Calculation N-92-005 to reflect the conclusions from this condition report.								
DBD01-36-007	OPEN	01/02/96		1	1	EEM		
Basis for using 10 Amp breakers off Vital 120 VAC Buses could not be determined								
The feeder breakers off Vital 120 VAC Buses 1/2-Y11, 1/2-Y21, 1/2-Y31, and 1/2-Y41 were originally designed to be sized at 2 Amps, sufficient to carry the assumed maximum feeder load of 0.1 Amps. During original installation of these panels, 2 Amp breakers were not available from Westinghouse, so 5 Amp were intended to be substituted. However, only 1/2-Y31 uses 5 Amp feeder breakers while the remaining panels (1/2-Y11, Y21, Y41) use 10 amp breakers. The original basis for using 10 Amp breakers over 5 Amp breakers could not be determined.								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-36-008	CLOSED	01/02/96	11/12/96	1	0	EEM		
Bechtel drawing E-6, Sh.2 should be revised to reflect the correct configuration for D302								
Bechtel Drawing E-6, Sh. 2 (Ref. 8.5.1.2) shows molded case circuit breakers associated with 125 VDC Bus D302. Equipment Specifications PB-501, the PBNP Master Data Book, and validation of this DBD (Refs. 8.5.2.4, 8.5.4.3, and 8.3.26) proves that 125 VDC Bus D302 does not contain any automatically operated overcurrent protection devices. Bechtel Drawing E-6, Sh. 2 should be revised to reflect the correct configuration for D302.								
DBDOI-36-009	OPEN	01/18/96		1	0	EEM		
LTPU setting for motors connected directly to 480 VAC buses may be set low								
Validation of this DBD indicates that LTPU setting for motors connected directly to 480 VAC buses may be set below their design basis value of equal to or greater than 135% of Full Load Amps.								
DBDOI-36-010	OPEN	02/05/97		1	1	EEM		
MR 96-051 breaker D-12-04 and D-12-16 replacement								
MR 96-051 replaced breakers D-12-04 and D-12-16 to provide better protection for main control board wiring in AF-4002/2AF-4002 control circuits. MR-96-052 installed 15 ampere fuses in control circuits for valves 1/2AF-4000, 1/2AF-4001, 1/2MS-2019, 1/2MS2020 to provide better protection for main control board wiring in the circuits.								
DBDOI-44-001	OPEN	03/07/94		1	1	EEM		
PAM (T-44), Steam Generator wide range level transmitter sensing line separation								
Wide range level transmitters on the Unit 2 steam generators share a single set of sensing taps and sensing lines (a physical separation concern). Unit 1 transmitters have separate sensing lines. WE has told the NRC in a 2/8/91 telecon that the Unit 2 transmitter sensing lines will be separated when the U2 SGs are replaced. The DBD should be revised when this occurs.								
DBDOI-44-002	OPEN	03/07/94		1	1	EEM		
PAM (T-44), Pending NRC response to WE RG 1.97 inspection response on signal isolation, instrument calibration, and control panel								
In letters to the NRC dated 7/29/92 and 10/20/92, WE responded to three NRC questions from the 1991 RG 1.97 inspection regarding signal isolation, instrument calibration, and control panel instrument identification. No NRC SER has been received on these responses as of 3/94. The SER, when received, could impact the PAM design bases (particularly in the area of signal isolation). The DBD should be revised when the NRC response is received.								
DBDOI-44-003	OPEN	03/09/94		1	1	EEM		
PAM (T-44), Some Recorders in Category 1&2 instrument loops not classified in CHAMPS as QA=Y								
The PAM DBD validation (performed by S+L) identified some Category 1 and Category 2 instrument loops that contain recorders classified in CHAMPS as QA=N which are not electrically isolated from the remainder of the loop (which is classified as QA=Y). Per H. Hannemann and the resolution of QA Audit Finding A-P-89-12-100, all PAM devices in a QA instrument loop should either be classified QA=Y, or the non-QA parts should be isolated from the remainder of the loop.								
DBDOI-44-004	OPEN	03/07/94		1	1	EEM		
PAM (T-44), Review DBD for consistency with pending Tech Spec CR 154								
PBNP Technical Specification Change Request 154 (Reference 8.2.20) revises TS Section 15.3.5, "Instrumentation System", and Table 15.3.5-5, "Instrument Operating Conditions for Indications". One of the reasons for revision is to add operability and surveillance criteria for all type A and Category 1 PAM instrument loops, as well as selected Category 2 loops. The DBD should be reviewed for consistency with Technical Specification 15.3.5 after the TS amendment is issued.								
DBDOI-44-005	OPEN	03/08/94		1	0	EEM		
PAM (T-44), DBD table & CHAMPS CIV listings not consistent with FSAR 5.2								
The list of containment isolation valves requiring Control Room indication (DBD Table 3-7) is not consistent with FSAR Figures 5.2-1 through 5.2-X2 (revised in June 1992). The FSAR figures show approximately 15 remote-operated valves classified as containment isolation valves that are not currently listed in DBD Table 3-7. In addition, Table 3-7 lists two valves (SC-953 and SC-955) as CIVs that are not shown as CIVs in FSAR figures for penetrations 28a and 28b.								
The DBD table (and CHAMPS) should be revised to be consistent with FSAR Section 5.2.								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBDOI-44-006	OPEN	09/21/94		1	1	EEM		
Revise DBD-T-44 to explain why battery backed-up indication for electrical bus voltages is not required or desirable.								
The Post Accident Monitoring DBD (DBD-T-44) states that all Reg. Guide 1.97 Category 2 instruments are supplied by battery-backed up power supplies. However, this should not apply to instruments monitoring electrical bus voltages (i.e. A05 and A06 bus voltage). These instruments are powered by the buses they measure, therefore, a loss of power to the bus will cause the indication to fail low, correctly indicating bus voltage. A "battery-backed" power supply would be susceptible to providing bus voltage indication when the bus is actually dead. The Post Accident Monitoring DBD (DBD-T-44) should be revised to explain why battery backed-up indication for electrical bus voltages is not required or desirable.								
DBDOI-44-007	OPEN	09/10/96		1	1	EEM		
DBD does not reflect SER 95-006 authorization to remove BAST level indication from list of parameters required to monitored								
SER 95-006 justified removal of BAST level indication from the list of parameters required to be monitored to meet PBNP licensing commitments which implement Regulatory Guide 1.97 recommendations. PAM DBD does not currently reflect this change. (BAST level transmitters were type D.#12 cat 2 variables.)								
DBDOI-44-008	OPEN	03/13/97		0	0	EEM		
Incorrect Labels on Instruments								
Transmitter name tag labels for 1 + 2 FT-962 and FT-963 (containment spray flow) are labeled as "FE" instead of "FT". Instruments are on 8' level of PAB in pipeways.								
DBDOI-44-009	OPEN	03/13/97		1	1	EEM		
Recommendation to improve FSAR description of PAM instruments								
Comments 6 + 7 of DBD T44 validation attribute 2.9 recommend upgrading FSAR section 7.7 to describe all PAM instruments (not just ASIP instruments). There is no licensing commitment to do so. (comments 1 to 5 of validation attribute 2.9 have already been closed).								
Full comments and attachments pertaining to validation attribute 2.9 are available in the Validation Report and are also attached to the PBF1611 initiating this DBDOI. The introductory paragraph and the text of comments 6 + 7 is as follows:								
A review of the FSAR for information relating to the PAM DBD was performed. In particular, sections 5.0, 7.0, 8.0, 10.0, and section 11.2 were reviewed. Specific information relating to PAM instruments such as instrument number, location, instrument range, and instrument function were targeted. As a result of this effort, the discrepancies are noted:								
6. FSAR section 7.7.4 seems to imply that these panels contain all the Reg. Guide 1.97 instruments used at PBNP. However, other post-accident monitoring indicators are located on different control room panels.								
7. After review of the subject FSAR sections, especially section 7.0, in the judgement of Sargent + Lundy there is not sufficient information contained in the FSAR relating to instrumentation used for post-accident monitoring functions. The best attempt of the FSAR to explain post-accident monitoring instrumentation is in section 7.7.4. This section provides a description of the various instruments that are monitored on the ASIP panels. Although most of the instruments located on these panels are the result of Reg. Guide 1.97 commitments for post-accident monitoring, they are by no means inclusive of all the instruments used for a post-accident monitoring function. Many other instruments located on other main control room panels are not discussed and the FSAR does not adequately provide a reference to the reader to obtain this information. In our opinion, section 7.0 of the FSAR should provide more information or at least a table listing all the instrumentation used for a post-accident monitoring function. As a minimum, a reference to the PAM DBD or letter 82-33 should be included. Reference 1 enclosed in this package (validation report) is an example of another stations FSAR section 7.5 that describes the plants post-accident monitoring instrumentation. This example has been provided to help illustrate the extent and content of material expected to adequately describe post-accident monitoring instrumentation.								
DBDOI-50-001	OPEN	07/17/96		1	1	EEM		
Redundant pumps of certain safety-related fluid systems are located in sameplant areas								
Redundant pumps of certain safety-related fluid systems for both units are located in the same plant areas. No criteria have been found that either require separation or exempt these pumps from separation:								
<ul style="list-style-type: none"> <li>High-head Safety Injection</li> <li>Containment Spray</li> <li>Component Cooling</li> <li>Service Water</li> </ul>								
A technical justification for not separating this equipment by train and unit should be researched.								

TRKID	STATUS	INITIATED	CLOSED	TOTAL ACTIONS	OPEN ACTIONS	PLA	INITIATOR	ISSUE MANAGER
DBD01-50-002	OPEN	07/17/96		0	0	EEM		

Separation distance guidelines for instrumentation and NIS cabling not available

Original and current WE guidance require separate routing of instrumentation, low voltage, and medium voltage power and control cables. Westinghouse provided recommended separation distances for Pre-OL instrumentation and NIS cabling to prevent electromagnetic induction of noise on these circuits. However specific recommended distances for post-OL cable installations could not be found in any post-OL separation documentation. Recommend that separation distance guidelines for instrumentation and NIS cabling be added to WE Design and Installation Guideline DG-E07. See Section 2.2.4 of DBD-P-50 for additional discussion.

**ATTACHMENT B**  
**List of Condition Reports Generated**  
**from DBD Open Item Review**



Condition Reports associated with DBD OIs from 12/11/96 to 12/20/96

<u>DBD OI#</u>	<u>CR#</u>	<u>POD</u>	<u>Description</u>
01-002	96-1709	Y	Documentation of AFW turbine operation at low steam pressure.
03-001	96-1721	N	Plant response to step load changes.
03-002	96-1765	Y	Condensate low pressure bypass heater control valve may be undersized.
03-006	96-1780	Y	Concerns with design temperature of FW pipe segment.
03-007	96-1764	N	Setpoint of MFW pump low suction pressure trip switches may not provide adequate pump protection.
03-008	96-1818	N	Concern with lineup of bypass line for gland steam and air ejector condensers.
03-009	96-1763	N	Concern with maximum flow capacity of FW regulating valves.
17-001	96-1814	Y	Lack of formal 120 VAC voltage study.
17-005	96-1725	N	Incomplete FPER documentation of inverters credited for appendix "R" safe shutdown.
17-006	97-0018	Y	Harmonic distortion of Elgar inverters exceeds design value.
19-004	97-0019	<i>JW</i>	Concern with rating of 125 VDC circuit breakers.
21-003	96-1727	N	Linestarter for containment refueling cavity surface supply fan undersized.
22-004	97-0016	Y	Basis for reactor trip on RCP bus undervoltage not well documented.
27-001	96-1784	Y	Justification for exceptions to IEEE-279 for backup reactor trips.

Condition Reports associated with DBD OIs from 12/11/96 to 12/20/96

<u>DBD OI #</u>	<u>CR #</u>	<u>POD</u>	<u>Description</u>
27-002	96-1783	Y	Separation/isolation concerns with non-safety related backup reactor trips.
27-003	96-1775	Y	Lack of information on some RPS instrument loop accuracies.
27-005	96-1708	Y	Reactor Protection System sensors share common sensing lines.
27-006	96-1742	Y	Concerns about NI accuracy and minimum temperature for criticality.
30-002	96-1694	Y	Condensate measuring system operation is not consistent with FSAR.
30-003	96-1781	Y	Containment HVAC backdraft damper structural integrity concern.
30-004	96-1486	Y	Containment integrity accident analysis fan cooler start time.
30-005	96-1741	Y	Containment cubicle measured air flow concerns.
31-001	96-1773	Y	Control room charcoal filter flow test does not account for backleakage.
31-002	96-1782	N	Calculations for control room heating and cooling loads may not be correct.
31-003	96-1776	Y	Concern with distance assumptions in control room habitability analysis.
31-004	96-1774	N	No control room HVAC Tech Spec operability requirements for elemental iodine removal.
33-002	96-1686	Y	Bechtel Calculations on containment floor design do not appear to address seismic loads.
35-001	96-1752	Y	Missing calculations for FW temperature reduction.
35-002	96-1753	Y	Modeling of FW isolation in SBLOCA analysis.

Coordination Reports associated with DBD OIs from 12/11/96 to 12/20/96

<u>DBD OI#</u>	<u>CR#</u>	<u>POD</u>	<u>Description</u>
36-001	97-0017	Y	Lack of formal calculation for coordination of GO1/GO2 supply breakers.
36-005	96-1699	Y	120 VAC breaker coordination. ( 4 hour reportable event - 12/12/96 )
36-007	96-1714	N	Amperage ratings on several 120 VAC buses are different from design values.
44-003	96-1726	N	Non-QA PAM recorders may impact ability of loop to perform PAM monitoring function.
50-002	96-1820	N	DG-Eu7 needs to be revised to include guidance on separation distances for cabling.
ESF draft DBD OI#1	97-0121	Y	No margin between analysis limit and Tech Spec setpoint for low pressurizer pressure SI.
ESF draft DBD OI#2	96-1793	Y	Low Pressurizer Pressure SI signal generated from same channels primary control signals to spray valves.
RHR draft DBD OI#3	96-1844	N	OP-7A and OP-7B may need enhancement for RHR pump minimum flow requirements.
RHR draft DBD OI#5	96-1794	N	Procedures do not discuss how to initiate alternate seal cooling for RHR pump in operation.

ATTACHMENT C  
Results of LBD Open Item and  
Draft DBD Open Item Review

DBD OI Review from 12/12 to 12/20/96  
for Operability Concerns

**OI 01-001** No AFW flow requirements are identified for the SGTR analysis. This open item questions if this may be the most limiting accident for AFW flow (removes both sensible and decay heat). No Condition Report or operability determination required. Per conversations with Westinghouse and review of the SGTR AABD, AFW flow as calculated is viewed as a mass flow equivalent and the stated flow of 288 gal for this accident does not establish a limiting flow requirement. AFW flow is calculated as an output of this analysis and is not a governing parameter. However, this information was not available from Westinghouse at the time this OI was originally written. Update the DBD to explain that this accident analysis does not establish a AFW flow requirement.

**OI 01-002** AFW turbine low steam pressure operation. Write a Condition Report and prepare an operability determination. Not an operability concern because preliminary S&L information is available that indicates the expected RPM at reduced pressures is sufficient to provide adequate pump discharge flow rate.

**OI 03-001** Write a Condition Report. No operability determination required. 50% load reduction capability is not a safety related function. Based on operational experience, it is believed that the condensate system will respond to the above transients without initiating a reactor trip. However, should the condensate system not be able to respond, the plant will trip and be placed in a safe condition. Need to determine if the FSAR needs to be changed to reflect current plant response.

**OI 03-002** Condition Report required and prompt operability determination required. Sizing of our low pressure feedwater heater bypass control valve CS-2273 is in question. This valve does not perform a safety-related function. Since size of our current valve is smaller the effect of the decrease on the feedwater enthalpy accident is more conservative than if we had a larger valve. The impact on feedwater pump NPSH results in a lower NPSH available. However, the valve is expected to restore feedwater pump NPSH when it is required.

**OI 03-003** No Condition Report or operability determination required. This item pertains to information on design and performance parameters for the Seal Water Inlet Control Valves not being readily available. There is no specific need for this information at this time.

**OI 03-004** No Condition Report or operability determination required. This item pertains to not finding calculations to establish the basis for the design sizing pressure drop for the feedwater control valves. Information in MR 84-46 is applicable to this item and should be added to the DBD.

**OI 03-005** No Condition Report or operability determination required. EWR 94-262 will evaluate this, keep item open to make sure the EWR results are addressed in the DBD. There is no code requirement to protect the tube side of the condensate cooler. In addition, MR-532 and MR-533 indicate that a 1-inch valve is adequate.

**OI 03-006** Condition Report required and prompt operability determination required. Feedwater piping as installed is rated for 436 degF and early W design criteria may require design of 556 degF. Bechtel design criteria does indicate 436 degF. This represents the normal operating temperature of the piping. Even with backleakage past the check valves, the maximum temperature in the piping may not exceed the temperature used in the thermal modes analysis done for IEB 79-14 reconciliation.

**OI 03-007** Condition Report required. No operability determination required. This concern with the setpoint of the MFW pump low suction pressure trip relates to pump protection only. This is not a Safety Related pump, no accident analyses are affected.

**OI 03-008** Condition Report required. No operability determination required. The condensate system is not Safety Related. Isolating the bypass line may raise the above design flow values for these condensers and may cause a more rapid wearing out of the equipment. It also may affect flows slightly through other heat exchangers in the system but no adverse wearing of equipment due to slightly increased flows has been observed. The potential for personnel safety concerns was also looked at. The temperature of the condensate at the gland steam and air ejector condensers is approximately 90F, which should not pose a personnel safety concern.

However, since system pressure is high, erosion and corrosion mechanisms were examined to see if they can cause an increased pipe rupture concern with the increased flow. Flow accelerated corrosion is not a concern at the 90F temperatures in the lower portion of the condensate system. The redirection of 500 gpm of condensate due to the bypass line isolation, when compared to the nominal condensate system flow of 9000 gpm, is not expected to cause erosion concerns. Therefore, no specific personnel safety concern is identified with this issue.

**OI 03-009** Condition Report required. No operability determination required. MSSM meeting minutes 86-20 (contained in Modification 84-46 ) extensively reviewed the safety impacts of reducing the maximum flow capacity of the feed regulating valves and determined that there was no impact on safety analysis and any impact of slugging the steam generators was not a concern.

**OI 05-001** No Condition Report or operability determination required. This information is located at Westinghouse and is not readily available. There is no specific need for this information at this time.

**OI 05-002** No Condition Report or operability determination required. This information is located at Westinghouse and is not readily available. There is no specific need for this information at this time.

**OI 05-003** No Condition Report or operability determination required. This information is located at Bechtel and is not readily available. There is no specific need for this information at this time.

**OI 05-004** No Condition Report or operability determination required. This is a documentation problem only on how the racks were originally constructed. Bechtel correspondence on new fuel rack design supports this.

**OI 05-005** No Condition Report or operability determination required. These are standard tools supplied by Westinghouse to plants with our designed fuel and the RCC change fixture is also of this standard design for our vintage.

**OI 05-006** No Condition Report or operability determination required. Westinghouse specification applies to PBNP. Supporting calculations may be located at Westinghouse. There is no specific need for the calculations at this time.

**OI 06-001** No Condition Report or operability determination required. Deals with instrument and service air piping rating. Bechtel piping class summary identifies the design temperature as 100 degF. Individual components in the system have higher operating and design temperatures. ANSI code classification of the piping is 125 pounds and 650 degF, above the component design temperature ratings.

**OI 06-002** No Condition Report or operability determination required. Lack of design temperature information for the IA receivers is not an operability concern. There is no specific need for this information at this time. These receivers are not safety-related.

**OI 06-003** No Condition Report or operability determination required. Valves are augmented quality, non-safety-related function and tested periodically. Lack of documentation only.

**OI 06-004** No Condition Report or operability determination required. These valves are non-safety-related. However, since they are safety valves protecting code vessels, their setpoints should be documented. There is a program within System Engineering to systematically calibrate code safety relief valves associated with all state certified pressure vessels at PBNP. Verification will be made that the I&SA safety valves are included in this program.

**OI 06-005** No Condition Report or operability determination required. These nitrogen bottles are standard industry bottles. Even though the design pressure and temperature of the bottles has not specifically been located, the nitrogen passes through a pressure regulator and the pressure is reduced to 100 psig at the valves. Therefore design pressure and temperature values for the bottles are not critical for the function the nitrogen performs for these valves. Further research will be done at PBNP to try to locate these values.



**OI 06-006** No Condition Report or operability determination required. The concern in this DBDOI is that the air accumulators may not be rated to accommodate their design internal pressure at post-LOCA temperatures, which are higher than the normal operating range. It was verified that the ASME (1965) code allowable stress values for pressure vessel steels are the same for all temperatures from -20 through 650 F. Therefore, the allowable design pressure for these vessels will remain constant through and beyond post-LOCA temperatures. Update the DBD.

**OI 06-007** No Condition Report or operability determination required. DBD will be updated at the next revision to correct wording based on the WE response to SOER 82-6 dated 5/28/82.

**OI 09-001** No Condition Report or operability determination required. Information has been located and DBD will be updated at the next revision to correct wording.

**OI 09-002** No Condition Report or operability determination required. The calculations reside at Westinghouse and are not readily available to WE due to the proprietary nature.

**OI 09-003** No Condition Report or operability determination required. DBD will include this modification at the next update.

**OI 12-001** No Condition Report or operability determination required. Valve fails open, this is accommodated for in the service water analysis and failure is not dependent on throttling characteristics. Throttling function is non-safety-related - used to control flow to the A/C condensers in the cable spreading room.

**OI 16-001** No Condition Report or operability determination required. The purpose of this item is to ensure this information will be included in DBD when it is written.

**OI 17-001** Condition Report required and operability determination required. Safety related instrumentation is powered from the vital 120 VAC system. The "fail-safe" condition of instruments supplied by this power is

“fail to the tripped condition” with the exception of containment spray which is energize to actuate. The instruments associated with the vital 120 VAC system are calibrated and tested during normal operating conditions, which are the same system loading conditions that would exist during accident conditions (therefore system voltages are the same). The inverters on the system maintain the voltage constant at their setpoint. Operational history shows no generic equipment problems related to abnormal voltages have occurred. This issue is a missing documentation problem.

**OI 17-002** No Condition Report required and no operability determination required. Loading on the inverters is fairly constant based on the fact that all “loads” (instruments and relays) are normally operating. This loading does not increase under accident conditions. There is sufficient load capacity in the inverters above the normal operating point. Plant logs reflect an upper limit of 50 amps on the inverters with a normal loading range of 21 to 34 amps. Item is the result of a lack of documentation.

**OI 17-003** No Condition Report or operability determination required. This information should exist in the technical manuals for the transfer switches or inverters to what their transfer time is. Operational history since the installation of the SCI inverters (internal transfer switch) and the addition of external transfer switches to the Elgar inverters proves this. There have been many transfers without interruption of power and not causing a trip of any channel.

**OI 17-004** No Condition Report or operability determination required. A formal transformer setting calculation to determine the tap setting for the Alternate Source Transformer (XY-08) could not be located. This transformer is not the primary source of power to the inverters, it is a non-safety related source to provide uninterrupted power to the inverters. When instrument busses shift to the alternate source there is an 8 hour LCO to get them back to a safety related supply. If the bus that supplies XY-08 is deenergized, the only requirement is for fire rounds in the cable spreading room, therefore, XY-08 could be deenergized indefinitely. This item does not indicate a problem with XY-08, only unavailable documentation.

**OI 17-005** Condition Report is required. An operability determination is not required. PBNP FPER Tables 4.5-1 and 4.5-2 do not list Y-02 as a safe

shutdown component even though it is listed as a safe shutdown "power supply". Additionally, consider including 1/2-DY01, 1/2DY02, and 1/2-DY-03 as safe shutdown components. Manoj Kurup and Chris Ksobiech reviewed this issue and determined the following: Y01 and Y03 are already on the FPER; Y101 through Y104 do not need to be on the FPER; and DY01, DY03, DY04 for both Units need to be added on FPER and CHAMPS. Do not know if Y02 and DY02 need to be on the FPER - this needs confirmation. All components of concern have been included in the logics and analysis.

**OI 17-006** Condition Report and prompt operability determination required. The 120 VAC DBD Validation report determined that the total harmonic distortion at the output of the Elgar inverters exceeds the design value of 5%. This distortion was investigated by ABB Impell (#09-0870-0383) in 1990 to determine the cause and recommend solutions to reduce or eliminate it. This study measured the amount of harmonic distortion on the white and yellow instrument buses, which supply power to plant computer equipment. The results of the measurements showed the amount of harmonic distortion was typically about 10% and fairly constant - primarily due to lower order harmonics. ABB Impell made recommendations to address the harmonic distortion. These recommendations included further inverter testing, replacement of inverter filter capacitors and changing the method of performing instrument bus transfers to reduce voltage transients. These recommendations were implemented and no significant changes in the harmonic distortion resulted. It was also confirmed that the harmonic distortion on the instrument buses is due to the instrument bus loads and not due to the inverters themselves. Over 10 years of actual operation with the plant process computer equipment as loads on these instrument buses has indicated no inverter malfunctions or adverse effects on the loads due to harmonic distortion. In addition, instrument bus voltages are logged shiftly and I&C does monthly testing of instrument bus waveforms to verify that the harmonic distortion is not changing significantly. Therefore, the above operational data and measurements verify that the observed harmonic distortion does not impact operability of the inverters.

**OI 17-007** No condition report or operability determination required. This pertains to instrument bus inverters tested below their rated function. OI was written due to misunderstanding of the purpose of the test. The test is

intended to be functional test after maintenance. Under normal conditions it carrying its full load (no increase under accident conditions). Site engineering recommends closing out this item.

**OI 19-001** No condition report or operability determination required. Operating Instruction (OI) 33 allows charger float voltage for batteries to be slightly higher than design maximum voltage for batteries. This may shorten battery life but will not exceed any equipment voltage limits. RMP 9046 is used to establish and maintain float voltages to values that are below design float voltage band on a monthly basis. There are also under and overvoltage alarms on the DC system that assure proper voltage is maintained. These relays are calibrated on a routine frequency. Revise DBD to clarify open item. No changes needed to OI-33. Battery charger voltages maintained by the OIs are flagging points to notify maintenance that an adjustment needs to be made. Battery Charger voltages are monitored on a shiftly basis and logged.

**OI 19-002** closed

**OI 19-003** closed

**OI 19-004** Condition Report required. An operability determination is not required. Pete Fillinger determined by a conversation with Square D that the existing ratings on the bus DO3 and DO4 breakers are conservative. Documentation is being obtained from Square D to demonstrate this.

**OI 19-005** closed

**OI 19-006** closed

**OI 20-001** No Condition Report or operability determination required. This item deals with coordination with switchyard lightning protection and switch yard equipment insulation levels. This is a lack of documentation item only. Equipment currently in use meets all industry standards.

**OI 20-002** No Condition Report or operability determination required. This item reflects a lack of documentation only on the maximum 345 KVAC system fault current capacity. There is no indication that fault currents on the 345 KVAC system could exceed the rating of individual 345

KVAC components, which are rated at or above the original design fault current capacity ratings.

**OI 21-001** No Condition Report or operability determination required. This item is related to a misunderstanding of what the temperature gauge is reading. The 2X14 temperature sensor indicates ambient plus temperature rise of the transformer oil based on actual examination of the gauge and therefore this is no longer an issue. High transformer oil temperature does not result in transformer failure but would only shorten transformer life.

**OI 21-002** No Condition Report or operability determination required. Lack of documentation as to tap setting of transformer X08. X08 supplies busses BO8 and BO9, which are not safety-related. Loss of these busses causes no problems other than the loss of appendix R backup power supplies and fire rounds are instituted to compensate for this.

**OI 21-003** Condition Report required. No operability determination required. MCC line starter (MCC 1B-31, Cubicle 40) may be undersized for its rated load (found during DBD validation). This is a 15 HP motor with 10 HP line starter. Load (containment refueling cavity surface supply fan) is non-safety-related. As-Built group is reviewing rating of all line starters. Based on sample size during validation this is not a generic issue. Validation of safety-related MCCs found no problems.

**OI 21-004** No Condition Report or operability determination required. Missing documentation only to establish the basic impulse level ratings of auxiliary electrical system components. System evaluated to meet general industry standard.

**OI 21-005** closed

**OI 21-006** closed

**OI 22-001** No Condition Report or operability determination required. A formal calculation to determine the minimum design capacity of the LVSATs does not exist. The 4160 VAC DBD validation (item 2.2) looked at the maximum load expected on the LVSAT and determined that the maximum load is well below the nameplate capacity. The purpose of this

item was to recommend that a formal calculation be done just to document what the validation determined.

**OI 22-002** closed

**OI 22-003** closed

**OI 22-004** Condition Report required and operability determination required. This pertains to the condition where a Westinghouse calculation tying the Reactor Trip setpoint for RCP bus undervoltage to assumptions in the Complete Loss of Flow analysis could not be verified. The AABD, Module 8 states that .4 seconds of the 1.5 second time delay for the undervoltage trip is specifically assumed for voltage decay. This time appears to be met based on the Tech Spec setting of 75% and on a Westinghouse EMF decay study.

**OI 27-001** Condition Report and operability determination required. Some RPS backup trip circuits were found during DBD preparation that do not fully meet IEEE 279 criteria. These backup trips are not specifically taken credit for in the accident analysis. The DBD contains a technical justification for these exceptions. This justification should be included in the Condition Report.

**OI 27-002** Condition Report required and operability determination required. The validation of the RPS DBD reviewed the PBNP evaluation of IEN 91-11 regarding separation of non-safety-related circuits from RPS circuits. The validation team did agree with the conclusions reached in the evaluation regarding the 4160 VAC undervoltage trip signal, but believes 3 other backup trips needed investigation. The validation team investigated each of these backup trips and found them all to contain non-safety-related contacts used to provide trip signals to the RPS. The team found all these contacts to have adequate separation and isolation (primarily through relays), such that they would perform their intended actions adequately, and not hinder the performance of any FSAR primary safety function.

**OI 27-003** Condition Report required and operability determination required. Loop accuracy requirements could not be found for some RPS sensors during DBD preparation. The setpoint reverification program will reconstitute the basis for the TS setpoints, demonstrate adequate margin

between the primary trip analytical limits and the TS setpoints and determine the accuracy requirements. Margin currently exists between the TS setpoint, the actual field settings, and the analytical limits for primary trips such that instrument uncertainty is taken into account, according to a review during the DBD validation.

**OI 27-004** No Condition Report and no operability determination required. This item pertains to the design of our SI-to-RPS trip logic. This design is doubly redundant and exceeds IEEE- 279 requirements. The open item is in place to document that the reason for this conservative design is unknown and requires research.

**OI 27-005** Condition Report and operability determination required. Redundant RPS channels of RCS flow and pressure transmitters share common sensing lines. The condition report should state that there is correspondence with the AEC at plant construction indicating AEC acceptance of shared sensing line condition as part of the plant license. Revise DBD to include technical bases for acceptability. A broken line will cause a reactor trip (safe condition) and SI (for a pressurizer pressure line break) and a blocked line is considered unlikely since there is no flow in the line during normal operation. Blockage during refueling would be detectable during startup as plant conditions change.

**OI 27-006** Condition Report and operability determination required. Concerns minimum allowable temperature for critical operation, considering nuclear instrument accuracy at low RCS temperature. This has been closed out by R. Kohrt in IR 93-015 Action #2. This is not an issue at PBNP because operating procedures now preclude taking the plant critical below about 530 degF so NI accuracy is not degraded below the assumed accuracy in the accident analyses that rely on NIs to trip.

**OI 27-007** No Condition Report or operability determination required. The DBD needs to be updated to reflect the definition of "short duration" temperature limit for the excore neutron detectors, per WCAP-7669.

**OI 30-001** No Condition Report or operability determination is required. The calculation described in this open item will be canceled and is no

longer applicable to any evaluations that we do regarding containment cooling.

**OI 30-002** Condition Report 96-1694 has already been initiated identifying that the condensate measuring system is operated in a manner less sensitive than described in the FSAR. An operability determination is required. Plant still has the capability to detect a 1 gpm leak, within a four hour period as described in the WE response to GL 84-04. Tech Spec requirements are being met.

**OI 30-003** Condition Report required and operability determination required. This item pertains to the capability of the VNCC backdraft dampers to withstand the dynamic pressure forces following a LOCA. A preliminary assessment by S&L indicates that there will be little or no reverse pressurization on the backdraft damper and structural integrity will be maintained. In addition the design is consistent with that seen at other plants.

**OI 30-004** Condition Report 96-1486 has already been written and an operability determination has been completed. This item pertains to the identification that the times for the fan coolers and spray pumps to reach full capacity is longer than what was assumed in the containment integrity analysis.

**OI 30-005** Condition report and operability determination required. Measured air flows to some containment cubicles appear to be below original calculated air flows (an EQ concern for high ambient temperature degrading equipment). Based on temperature traces from EQ program and temperature monitoring during normal operation, the cubicle temperatures do not appear to be unusually elevated, and this is not considered an operability problem for the EQ equipment in the cubicles (there is SR equipment in these cubicles). Write a CR to document this condition and use the operating history for the prompt operability evaluation.

**OI 30-006** No Condition Report or operability determination required. The current licensing basis contains no requirement for these ducts to recirculate hydrogen post-LOCA. PACVS and the Hydrogen Recombiner are designed to handle hydrogen in containment post LOCA.



**OI 31-001** Condition Report required and operability determination required. Westinghouse performed an evaluation with 25% less flow than nominal (4950) cfm. which models a large degree of leakage through the backdraft damper. The results of this calculation show that doses increased by .5% in mode 4 (23.7rem) and 30% in mode 3 (9.04rem). In each case thyroid doses remain below allowable limits. It was also checked and determined that a lesser flow rate will not adversely affect filter efficiency and in fact will raise filter efficiency.

**OI 31-002** Condition Report required but an operability determination is not required. This item pertains to a concern that control room heating and cooling load calculations may not be correct. Control room cooling is not a safety-related function. Control room cooling loads are currently being reevaluated by NPTS to determine the limiting control room chilled water pump flow. This evaluation will determine an accurate room cooling load as an input. Indications at this time are that the installed equipment is able to accommodate the cooling load with margin. Actual control / computer room heating capacity plus room heat loads is in excess of the required capacity.

**OI 31-003** Condition report and operability determination required. The distance from the control room stack to the Unit 2 containment is actually 102 feet, while the control room habitability analyses assumed 124 feet. The control room volume is currently 65,243 ft<sup>3</sup>, while the control room habitability analyses assumed 55,195 ft<sup>3</sup>. Westinghouse was contacted and performed an evaluation using 65243 ft<sup>3</sup>. The results of this evaluation showed that thyroid doses were down 9% in mode four and up 15% in mode three. For both cases the dose limit is not exceeded. An internal calculation (calc. 95-0254 rev. 2) was performed using the actual Unit 2 stack distance and determined that the effect of changing 124 ft to 102 ft was insignificant.

**OI 31-004** Condition Report required, operability determination is not required. First bullet, Tech Specs are more restrictive than the analysis, no additional research necessary. Second bullet, Condition report was previously issued. Condition Report will be issued describing why elemental iodine testing is not required. Third bullet, Not an operability question.

**OI 31-005** No Condition Report or operability determination required. The purpose of this item is to track the completion of MR 93-041, which included revised power supplies to the C-67 panel and fans, and update the DBD to reflect the mod information.

**OI 33-001** No Condition Report or operability determination required. Westinghouse documentation substantiating loads applied to structure or major NSSS equipment is not available. Bechtel calculations are relied upon for the loads. Additional investigation should be done with Westinghouse to locate this documentation - a missing information issue.

**OI 33-002** Condition report and operability determination required. Milwaukee Engineering and Bechtel confirmed that the standard Bechtel design practice for containment interior structures included consideration for seismic loads. The containment is judged to be operable and capable of performing its intended functions. A review of the original PBNP Safety Evaluation Report prepared by the AEC indicates that the appropriate seismic loads were accounted for under the original design and were not of concern.

**OI 35-001** Condition Report and operability determination required. The maximum temperature reduction assumed in the Reduction in Feedwater Enthalpy Accident is 15F, but no calculations were found to show that this is the limiting reduction (informal calculation shows it may be 17F). This accident is bounded by the Excessive Load Increase (ELI) accident, even with a slightly greater temperature reduction. However, a formal calculation should be performed to determine the appropriate temperature reduction value for PBNP.

**OI 35-002** Condition Report and operability determination required. Main feedwater isolation is not modeled in the SBLOCA analysis as it would be expected to occur. The isolation time vs flow profile in the analysis (full isolation within 7 sec) is different from the Table 15-3 times in the AABD. Since the accident is insensitive to feedwater isolation, the difference in flow profiles would probably not impact the SBLOCA analysis. Current SBLOCA analysis results in a PCT well below the 2200F acceptance criteria, so substantial margin to the PCT limit exists.

**OI 36-001** Condition Report and operability determination required. No calculation could be located for coordination of EDG GO1/GO2 supply breakers to 1/2 AO5. Westinghouse established the relay settings, no studies or calculations exist that look at a fault on any AO5 load affecting the entire bus. Separation of 4160 V trains prevents any fault from affecting the opposite train. This condition is within the single failure criterion. Assuming coordination does not exist, a worst case single failure would be limited to one SR train and will not affect the ability of the SR train to supply power to its SR loads.

**OI 36-002 and -003** No Condition Report or operability determination is required. New WE Calculation, currently being reviewed, shows there are no coordination problems questioned by these two items. Breakers were upgraded (w/ amptector) to improve coordination. Upon acceptance of the calculation, these Open Items will be closed.

**OI 36-004** No Condition Report or operability determination is required. This item notes that specific documentation does not exist to explain why molded case circuit breakers were chosen over fuses or other types of protection devices for the 125 VDC and Vital 120 VAC systems. However, there are no specific design or licensing basis requirements requiring that a specific type of overcurrent protection device be selected for these systems. The only requirement is that the overcurrent protection devices satisfy their design functions, which include component overcurrent protection and may also include coordination with upstream devices. Condition reports have been written to address instances where devices do not coordinate and where there are potential concerns with overcurrent protection. The DBD should be revised to reflect this information.

**OI 36-005** A formal evaluation of breaker coordination between supply and branch circuit breakers in 120 VAC distribution planes 1/2-Y11, 1/2 - Y21, 1/2-Y31, and 1/2-Y41 could not be located. This item is covered by CR 96-1699 (issued 12/12/96 as a four hour reportable event).

**OI 36-006** No Condition Report or operability determination is required. WE calc N-92-005 shows that 125 VDC breaker and fuse coordination will not in all cases isolate a fault prior to losing the entire panel. CR 94-536

evaluated this issue and concluded that cable impedances between 125 VDC buses and common cable routing points are large enough to ensure coordination if a fault occurs at the common routing point. The purpose of the OI is to track the revision of calc N-92-005 to reflect the conclusions of the CR and update the DBD accordingly.

**OI 36-007** Condition Report required. No operability determination is required. Feeder breakers off of busses 1/2-Y11, 1/2-Y21, 1/2-Y31, and 1/2-Y41 were originally designed for 2 amp capacity. During original installation, 5 amp breakers were substituted since 2 amp were not available. However only 1/2-Y31 uses a 5 amp breaker and the remaining panels use 10 amp breakers. It was verified from a review in CARDS that the wires fed by these breakers are of adequate current carrying capacity. The circuit breakers appear to provide adequate circuit protection. Coordination issues with these breakers are addressed by CR 96-1699.

**OI 36-008** Closed

**OI 36-009** No Condition Report or operability determination is required. Long Time Pickup setting for 480V load center breakers may be set too low. This may cause unnecessary breaker trips during degraded voltage conditions. An operability evaluation of this issue has already been performed in connection with CR 96-264.

**OI 44-001** Closed

**OI 44-002** Closed

**OI 44-003** Condition Report required. No operability determination required. Recorders on main control boards for two PAM variables are classified in CHAMPS as non-QA and non-seismic. This is not consistent with the PAM function for these instrument loops, which is classified as Augmented Quality. Recorders should either be QA or isolated from the rest of the loop so that the ability of the loop to perform its PAM function following an accident is not compromised. However, there is not a specific mechanism identified that would cause these recorders to fail (a seismic event does not cause a design basis accident). There is no impact on SR functions. The PAM loop is isolated from RPS. Site QA is currently

performing a QA classification review for all R.G. 1.97 instrumentation, which will look at these recorders.

**OI 44-004** Closed

**OI 44-005** No Condition Report or operability determination required. A new check valve has been installed that removes SI-834A and SI-834B as containment isolation valves. The DBD has been updated to include the remote manual containment isolation valves shown in the FSAR as CIVs, and any CHAMPS inconsistencies will be corrected.

**OI 44-006** Closed

**OI 44-007** Closed

**OI 50-001** No Condition Report or operability determination required. This item identifies the need to capture a formal justification in the DBD for not separating various redundant safety-related pumps, so that the "why not" question is answered permanently in the DBD. No design basis exists to require physical separating these pumps, and no violation of any design basis is implied by not separating these pumps. The typical reason for separating redundant equipment in the plant is to protect from external hazards, such as fires, missiles, flooding, etc. The rooms in which these pumps are located are protected from external missiles, are analyzed for flooding, and the pumps are analyzed or exempted from fire protection criteria. The Hazards and Fire Protection DBDs support this position.

**OI 50-002** Condition Report required. An operability determination is not required. The separation distance issue pertains to separation guidelines for induction noise. Physical separation between these cables does exist. Where noise problems have occurred they have been addressed. Addition of guidelines to DG E-07 is recommended to minimize future noise problems due to separation.

DRAFT REV 0 DBD POIs

12/19/1996

13.8 KV, POI #1 (now DBDOI-18-001) No Condition Report or Operability Determination required. We have not deviated from complying with Tech Specs. This OI recommended adding additional Tech Specs to specifically address loss of HVSAT instead of depending on 15.3.0 (to prevent having to shut down a Unit within 3 hours on a loss of the Units HVSAT). This item will be addressed by a conversion to Standard Tech Specs.

13.8 KV, POI #2 (now DBDOI-18-002) No Condition Report or Operability Determination required. The design loading has been defined in the DBD and is estimated to be well below nameplate. This item just documents that a formal calculation is not in place. Action should be assigned to EEG to do.

13.8 KV, POI #3 (now DBDOI-18-003) No Condition Report or Operability Determination required. Per \_\_\_\_\_, there is no problem with safe shutdown analysis or fire brigade safety. In general, guidance is not provided for isolating electrical power to a room before fighting the fire - would have to secure all feeder breakers - this is probably not appropriate. Fire brigade receives training to assume all equipment energized unless determined otherwise. Not a concern for safety based on discussions with \_\_\_\_\_ and \_\_\_\_\_.

13.8 KV, POI #4 (now DBDOI-18-004) No Condition Report or Operability Determination required. GO5 loading resulting from SBO and Appendix R loads is well below the capacity of GO5. GO5 is also sufficiently rated to handle load from a Unit trip/LOCA from 50% based on operating experience. Need to formally document/calculate loading under this condition. Action to EEG to do this. Update DBD when EEG action completed.

13.8 KV, POI #5 No Condition Report or Operability Determination required. CR 93-137 addresses this issue.

13.8 KV, POI #6 (now DBDOI-18-006) No Condition Report or Operability Determination required. Have crew "E" responsible for OI-110, review the OI to ensure that it is adequate for maintaining 13.8 KVAC bus voltage when GO5 is isolated. Guidance is provided in this OI to initially set voltage and frequency at 13.8KVAC and 60 Hz (a Condition Report had previously looked at maintaining voltages at 13.8 KVAC system and made changes to this procedure).

13.8 KV, POI #7 (now DBDOI-18-007) No Condition Report or Operability Determination required. Voltage normally controlled by 345 KVAC system, therefore under normal conditions, 13.8 KVAC is not used for control of electrical distribution system. During safe shutdown the 13.8 KVAC system could be used to control electrical system voltages. Therefore, recommend that specific minimum

voltages be calculated by EEG to establish minimum system voltages based on preventing spurious operation of Degraded Voltage relays. Note: operator logs require maintaining 4160 VAC bus voltage greater than 4100 volts, which is above the Degraded Voltage Setpoint.

RHR, POI #1 No Condition Report or Operability Determination required. Capability to isolate and flush the RHR pumps during the recirculation phase. This was mentioned as an optional design capability in the Westinghouse ACS system description and is not considered to be a design requirement. An FSAR search determined that this capability is not discussed specifically and therefore is not a licensing requirement. The flushing capability would be used to decontaminate the RHR pumps following their use during sump recirculation. It was decided that the most appropriate means of decontamination will be used and decided upon at the time the flushing function would be necessary. This information should be used to update the Draft Rev. 0 RHR DBD Sections 2.2.10 and 3.7.0.

RHR, POI #2 No Condition Report or Operability Determination required. FSAR Description of RHR penetration. This penetration has always been considered to be an "in use" penetration [Unit 1 PSAR]. This penetration could be used to depressurize and cooldown the RCS to help mitigate a small break LOCA [EOP 1.2]. The "special" classification in the FSAR is appropriate and Draft Rev. 0 RHR DBD Section 2.2.4 should be updated to provide additional clarification.

RHR, POI #3 Condition Report required. No operability determination required. RHR pump is normally cooled by recirculation flow through valves 733 A&B at 160 gpm minimum flow for short term operation, flow must be increased to 520 gpm for indefinite single RHR pump operation. This issue is more a need for procedure enhancement than for pump protection. This precaution is listed in IT-3 and IT-4 but should also be included in OP-7A and OP-7B (IT-3A & 4A should be evaluated), and should read "Limit the run time of the LHSI pumps to less than or equal to 30 minutes when only on mini-recirc flow (design flow rate of 150(IT-03A)/160 gpm(from DBD)). Minimum total flow for continuous operation is 520 gpm."

RHR, POI #4 No Condition Report or Operability Determination required. Basis for FT-626 Low Flow Alarm Setpoint not located. OP-4D series states when drained down below the reactor vessel flange but above reduced inventory normal RHR flow is 1000 to 1500 gpm. When in reduced inventory RHR flow is 900-1100 gpm. The 800 gpm low flow alarm setpoint is consistent with the allowed flowrates per the OP's. Based on operational history it was determined that the 800 gpm is an acceptable minimum flow rate alarm setpoint in the RHRS return line to prevent a potential system heatup and/or the alarm coming in intermittently. Update Draft Rev 0 RHR DBD Section 3.12.3.

RHR, POI #5 Condition Report required. No operability determination required. Procedures do not discuss how to initiate RHR pump alternate seal cooling.

Continuous operation of the RHR pump with elevated fluid temperatures (i.e. during cooldown and during the Post-LOCA recirculation phase) requires cooling. Seal cooling is normally provided via CCW flow to the RHR pump seal coolers. The functions of transferring heat from the RHR pump seal coolers to the SW system to maintain integrity of the pump seal is classified as safety-related for the CCW system. RH-711C&E, P-10A&B RHR pump emergency seal water isolation valves, could be opened as an alternate method of cooling the pump seal. Condition report should recommend that Operations evaluate whether procedures should be updated to place (when and how) the RHR pump alternate seal cooling in operation.

ESF, POI #1 Condition Report required and Operability Determination required. Validation of the ESFAS DBD determined that no margin exists between the accident analysis limit and the corresponding TS trip setpoint for the low pressurizer pressure SI actuation trip bistables. The analysis limit and the TS setpoint are both 1715 psig. The low pressurizer pressure SI actuation channels are still operable because the field setting of the bistable is set at 1735 psig, giving a 20 psi margin. A loop uncertainty calculation by Vectra provides a bounding value of 15 psi for the loop uncertainty for the SI actuation function from pressurizer pressure. This is supported by a review of ICP history for the as-found settings. Therefore, the 20 psi margin provided between the field setting and the TS/analytical limit assures that SI actuation on pressurizer pressure will occur within the accident analysis assumptions and within the TS limits.

ESF, POI #2 Condition Report required and Operability Determination required. The low pressurizer pressure safety injection signal is generated by analog pressurizer pressure channels that also supply a control signal for operating the pressurizer spray valves. A concern was raised as to whether or not this violates the control / protection interaction criterion of IEEE 279-1968. This was discussed with Westinghouse, and the Westinghouse position is that this is not a control / protection interaction concern because SI actuation is not required for core protection during the RCS depressurization transient caused by the inadvertent opening of the pressurizer spray valves. A reactor trip will still occur and provide core protection. Westinghouse will provide written justification of this position.



POINT BEACH UNIT 2 RESTART COMMITMENT  
INDEPENDENT REVIEW RESULTS

Commitment ID Number    21

Commitment Description

Review open items from the Design Basis Document development program.

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

Review Methodology

Review listing of all DBD open items reviewed by WEPCo.

Review a sample of open items.

Review results discussed with Responsible Person.

Review final package prepared by WEPCo

Review Results

The WEPCo. review generated 38 condition reports and 25 prompt determinations of operability from an original list of 93 open items. In general, condition reports and prompt determinations of operability were done when appropriate.

The following DBD open items (approximately 1/2) were reviewed, with the results noted:

No comments:

DBDOI-01-001	DBDOI-01-002	DBDOI-03-001	DBDOI-03-002
DBDOI-03-003	DBDOI-03-004	DBDOI-03-006	DBDOI-03-007
DBDOI-03-009	DBDOI-05-001	DBDOI-05-002	DBDOI-05-003
DBDOI-05-005	DBDOI-05-006	DBDOI-06-001	DBDOI-06-002
DBDOI-06-003	DBDOI-06-007	DBDOI-09-001	DBDOI-09-002
DBDOI-09-003	DBDOI-12-001	DBDOI-16-001	DBDOI-17-001
DBDOI-17-002	DBDOI-17-003	DBDOI-17-004	DBDOI-17-005
DBDOI-27-003	DBDOI-30-001	DBDOI-30-002	DBDOI-30-003
DBDOI-30-005	DBDOI-30-006	DBDOI-31-001	DBDOI-35-001
DBDOI-35-002	DBDOI-36-001	DBDOI-44-001	DBDOI-24-002
DBDOI-03-005	DBDOI-22-001		

POINT BEACH UNIT 2 RESTART COMMITMENT  
INDEPENDENT REVIEW RESULTS

DBDOI-50-001

This item needs more explanation. This item does not address other hazards like flooding, missiles, etc. If this information is not available, a condition report may be needed to adequately address the acceptability of this condition. Subsequent to this initial review, DBDOI-50-001 response has been revised and is acceptable.

DBD-12

The last Open Item was closed with CR 94-633. This is a significant issue related to the underperformance of the service water pumps. According to CR 94-633 a prompt operability determination was not done. This open item relates to the hydraulic analysis at the time did not allow any pump degradation. IST allows degradation prior to action being taking. When reviewing the CR 94-633 action item status report, it appears that the correct technical actions were taken.

DBDOI-03-008

Condition report addresses nuclear safety issues only. Additional wear on components may be acceptable; however the need for additional periodic monitoring is not addressed. Also, the potential for a personnel safety issue due the additional wear on this pipe is not addressed. As appropriate, consider documenting that this is or is not a personnel safety issues.

DBDOI-06-004

The valves in this item may be code related if they are protecting code vessels. If they are code related, periodic testing is necessary, and therefore the setpoints must be known. WE should consider evaluating if these are code related, and if so, a condition report may be necessary to track this item.

DBDOI-06-005

The issue documents the missing design information for the nitrogen bottles for the pressur zer PORV's. It appears that there are no known discrepancies for this equipment. However, given the operator preference to use these valves in the EOPs, further analysis may be appropriate. WE should consider determining and validating this information.

DBD-12

In addition, to reviewing the WE open item list, the open items in DBD-12 were reviewed. The DBD had three open items. One item was reviewed during the WE review, and two were closed by Condition Reports.

However, one of the open items in DBD-12 was quite significant and as a result its CR, CR 94-633, was reviewed. This issue relates to the underperformance of the service water pumps. According to CR 94-633 a prompt operability determination was not done. This open item describes that the hydraulic analysis at the time did not account for any pump degradation. IST allows degradation prior to action being taking. When reviewing the CR 94-633 action item status report, it appears that the correct technical actions were taken to revise the analysis over a period of approximately 1 1/2 year. However, a prompt determination of operability was not performed. This may indicate further review is necessary in the CR process.

```

***** Responsible Person:
* Trkid: U2R22 RESTART * Urgency: DONE
* Action Number: 31 * Work Priority: 99
*****

```

Activity Pending is: DONE

ASSOCIATED WITH A COMMITMENT

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

Unit 2 Refueling 22 Startup Commitments

Evaluate the adequacy of coordination on the 120 Vac instrument bus system through a 10 CFR 50.59 or operability review.

-----DATES-----

Source Record: 01/10/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 04/04/97
Action Create: 01/13/97	Orig Eval Due:	Orig CA Due: 02/11/97
Action Closed: 05/10/97	Eval Done:	Corr Act Done: 04/04/97

-----PEOPLE-----

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

-----UPDATE-----

(01/16/97 ) Set Work Priority to 90. Initial priority assignment. This item has been identified as a Unit 2 start-up issue. The attribute scores for this item have been arbitrarily selected to obtain an appropriate overall priority. Per Paul Katers, the minimum priority for all items identified as potential Unit 2 start-up issues is 90.

(01/29/97 Modifications have been initiated to re-supply non-safety related panels 2Y11, 2Y21, 2Y31 and 2Y41 from non-safety related supplies. I am also performing a formal calculation to determine the fault currents at the inverters to evaluate whether the current limit will be reached. I am anticipating completing the calculation next week and writing either a 50.59 or operability review the following week (by 2/15/97).

(02/11/97 Requested Due Date: 02/21/97

(02/11/97 Changed the Due Date from: 02/11/97 to 03/01/97 Short circuit calculation is almost complete. Work has progressed on repowering 2Y11, 2Y21, 2Y31 and 2Y41 from a non-safety related source (MR 97-005). New circuits supplied from all four Unit 1 instrument channels were found installed on adjacent manually operated breakers. A condition report and prompt operability determination was created for these circuits. Unit 2 circuits will be reviewed to determine whether there is a corresponding problem with the MOBs. The requested date should allow me to complete this review and complete the calculation and operability determination.

(02/28/97 Requested Due Date: 04/04/97

(02/28/97 ) Changed the Due Date from: 03/01/97 to 04/04/97 Modification 97-005 to resupply non-safety related buses 2Y11, 2Y21, 2Y31 and 2Y41 has been approved and should be installed in the next few weeks. Moving the non-safety panels off the safety panels will ensure that no single fault will cause multiple channels of instrumentation to fail. The requested date will allow for the completion of the modification and the short circuit calculation, if necessary.

(04/04/97 Passed to for acceptance of work.

(04/04/97 Passed to for Verification.

BACKGROUND (For full text see closeout documentation.)

A prompt operability determination was completed for this item in December of 1996. This operability determination was based on an initial projection that the short circuit currents would not exceed the current limit value for the inverters. However, in mid January, further analysis determined that the method of calculating cable impedances was non-conservative. The initial projection assumed two way cable impedances. The follow-up evaluation determined that one way cable impedances should be utilized with the faults return path to the source being through zero-impedance ground.

This change resulted in fault currents at the inverters exceeding the current limit values. As Unit 2 was still in a refueling outage, operability was not a concern. (Unit 1 operability and evaluation is being handled under CR 96-1699. This item, Restart Issue #31, only covers those portions of the 120 VAC system that are affected by the lack of separation on Unit 2 circuits.) A list of all cables supplied from one instrument channel, routed with cables of another channel, was obtained from the Cable And Raceway Data System (CARDS). This list was reviewed to determine where separation concerns existed.

#### ANALYSIS

This report verified that all Unit 2 conflicts between instrument channels in CARDS involved the 2Y11, 2Y21, 2Y31 and 2Y41 panels. Modification MR 97-005 was created to resupply panels 2Y11, 2Y21, 2Y31 and 2Y41 from Non-Safety Related panels 2Y113 and 2Y114.

Panels 2Y113 and 2Y114 are supplied from inverters 2DY03 and 2DY04 through isolation transformers 2XY113 and 2XY114, respectively. The transformers are designed such that, faults downstream of the transformers will not propagate high fault currents back to the inverters. The transformers will limit output current during short circuits to 175% of the 83.3 amp rating of the 10 kVA transformer (Component Instruction Manual PCP #792, Single-Phase Regulating Transformer (PAB N+S 120 V Isolation XFMR)). Therefore, the output current from the isolation transformer will be limited to 146 amps.

A review of the logs for inverters 2DY03 and 2DY04 showed that they are currently loaded to approximately 90 amps. The inverters are rated at 25 kVA and are designed to carry 208 amps continuously. The inverters begin to limit current at 150% of its rating or 312 amps. Therefore, the inverters could possibly be loaded above their continuous rating, to approximately 236 amps after a fault. However, the breaker upstream of the fault would trip in under 10 seconds. Hence, the inverter would only be temporarily loaded above its continuous rating and the life of the inverter would not be reduced. The voltage at the inverters would not be affected by the fault, as the voltage would not begin to collapse until the current limit value of 312 amps was reached.

The installation of MR 97-005 has been completed and only testing remains prior to acceptance of the modification. Since the installation is complete, there are no instances outside the Main Control Boards (MCB), where a failure in a single raceway can disable multiple channels of instrumentation. A fault may still disable a single channel of instrumentation. However, the plant was designed to single failure criteria and could safely achieve shutdown under this scenario.

There are instances within the MCBs where cables are not adequately separated. Cable separation issues within the MCBs are being corrected by MR 93-025. Licensee Event Report 96-007, "Redundant Safety Related Circuits in the Same Main Control Board Wireway," provides an overview of the MCB wiring concerns and reviews the licensing and design bases. Separation will be provided for the MCB circuits in a time frame commensurate with their safety significance.

Modification MR 97-005 will be completed prior to startup of Unit 2. Safety Evaluation Report 97-025 determined that this modification did not constitute an Unreviewed Safety Question and was approved on 2/26/97.

#### CONCLUSION

Considering the above, MR 97-005 has eliminated all known separation concerns due to Non-Safety Related circuits supplied from Safety Related 120 VAC panels, outside the Main Control Boards. As the modification removed the potential for a single fault disabling multiple inverters, no 50.59 determination is required. (Safety Evaluation Report 97-025 was approved for the modification, and covered the installation and final configuration of these panels.) MR 93-025 will ensure that all Unit 2, 120 VAC cable separation concerns within the MCBs are corrected in a time frame commensurate with their safety significance (see LER 96-007).

I recommend closure of Unit 2 Restart Issue #31. Closure of this item does not determine that the Unit 1, 120 VAC system is acceptable with respect to long term acceptability. Unit 1, 120 VAC separation concerns will be evaluated by CR 96-1699.

(04/04/97 ) A copy of the evaluation for this item has been forwarded to the DBD group for possible updating of the 120 VAC DBD.

ACTION ITEM STATUS REPORT

PAGE 3  
05/10/97

(05/06/97 ) Passed to ----- for Final Close Out.  
This is ready for closeout. The documentation package has been forwarded  
to Mary Beth Koudelka.

(05/10/97 ) PLA Closure of Item.  
MR 97-005 relates to 2Y-11, 2Y-21, 2Y-31 and 2Y-41. SER 97-025 addresses  
installation of the modification.

-----REFERENCES-----  
SER 97-025 MR 97-005

-----MISCELLANEOUS-----  
Originating Agency: System: XX  
NRC Open Item Number: NRC Status:  
Related Outages: J2R22  
Engineering Work Type: None Specified  
Person Hours: Original Estimate =  
Current Estimate =  
Actual Hours =

*U2R22 RESTART ISSUE #31**Unit 2, 120 VAC Instrument Inverter Separation Concerns*

---

**BACKGROUND**

The circuits supplied from panels 2Y11, 2Y21, 2Y31 and 2Y41 are classified as Non-Safety Related and were routed in raceways with circuits from other instrument channels. These panels were supplied from Vital Instrument Panels 2Y01, 2Y02, 2Y03 and 2Y04, respectively. This configuration created the potential for a fault in one of these raceways, causing multiple inverters to enter current limit mode and experience voltage collapse. The decreasing voltage could cause a temporary loss of redundant channels of instrumentation. This could result in the following:

- 1) Safety Injection initiation in Unit 2. This, coincident with an actual Safety Injection in Unit 1 and a Loss Of Offsite Power, could result in an emergency diesel generator aligned to supply both units, being loaded in a manner and to a level beyond which the design has presently been analyzed. This could result in an inability to supply power to the Unit 1 Safety Related loads. Diesel loading is not a concern when all four diesels are aligned to provide emergency power to their associated buses.
- 2) Temporary unavailability of automatic Containment Spray actuation for Unit 2. Automatic Containment Spray actuation is initiated when coincident two out of three CONTAINMENT HI-HI PRESSURE signals are received. Loss of multiple vital instrument buses could result in an inability to achieve coincident two out of three CONTAINMENT HI-HI PRESSURE signals. However, automatic Containment Spray actuation will only be unavailable for the short time it takes the upstream circuit breakers to clear the fault. Once the fault is cleared, the inverters will repower the vital instrument panels. Automatic Containment Spray actuation would only be lost temporarily and the ability to manually initiate Containment Spray will not be affected.
- 3) Inability to shutdown per the requirements of Appendix R. A fire in an area where cables from 2Y11, 2Y21, 2Y31 and 2Y41 are routed could result in fault currents exceeding the current limit value of the inverters. In fire areas where Non-Safety Related cables from multiple panels are routed, multiple inverters could shutdown due to the fault currents on these circuits. This could cause a spurious SI signal which could, in turn, result in overloading the diesel generators.

A prompt operability determination was completed for this item in December of 1996. This operability determination was based on an initial projection that the short circuit currents would not exceed the current limit value for the inverters. However, in mid January, further analysis determined that the method of calculating cable impedances was non-conservative. The initial projection assumed two way cable impedances. The follow-up evaluation determined that one way cable impedances should be utilized with the faults return path to the source being through zero-impedance ground.

This change resulted in fault currents at the inverters exceeding the current limit values. As Unit 2 was still in a refueling outage, operability was not a concern. (Unit 1 operability and evaluation is being handled under CR 96-1699. This item, Restart Issue #31, only covers those portions of the 120 VAC system that are affected by the lack of separation on Unit 2 circuits.) A list of all cables supplied from one instrument channel, routed with cables of another channel,

**U2R22 RESTART ISSUE #31****Unit 2, 120 VAC Instrument Inverter Separation Concerns**

---

was obtained from the Cable And Raceway Data System (CARDS). This list was reviewed to determine where separation concerns existed.

**ANALYSIS**

This report verified that all Unit 2 conflicts between instrument channels in CARDS involved the 2Y11, 2Y21, 2Y31 and 2Y41 panels. Modification MR 97-005 was created to resupply panels 2Y11, 2Y21, 2Y31 and 2Y41 from Non-Safety Related panels 2Y113 and 2Y114.

Panels 2Y113 and 2Y114 are supplied from inverters 2DY03 and 2DY04 through isolation transformers 2XY113 and 2XY114, respectively. The transformers are designed such that, faults downstream of the transformers will not propagate high fault currents back to the inverters. The transformers will limit output current during short circuits to 175% of the 83.3 amp rating of the 10 kVA transformer (Component Instruction Manual PCP #792, Single-Phase Regulating Transformer (PAB N&S 120 V Isolation XFMR)). Therefore, the output current from the isolation transformer will be limited to 146 amps.

A review of the logs for inverters 2DY03 and 2DY04 showed that they are currently loaded to approximately 90 amps. The inverters are rated at 25 kVA and are designed to carry 208 amps continuously. The inverters begin to limit current at 150% of its rating or 312 amps. Therefore, the inverters could possibly be loaded above their continuous rating, to approximately 236 amps after a fault. However, the breaker upstream of the fault would trip in under 10 seconds. Hence, the inverter would only be temporarily loaded above its continuous rating and the life of the inverter would not be reduced. The voltage at the inverters would not be affected by the fault, as the voltage would not begin to collapse until the current limit value of 312 amps was reached.

The installation of MR 97-005 has been completed and only testing remains prior to acceptance of the modification. Since the installation is complete, there are no instances outside the Main Control Boards (MCB), where a failure in a single raceway can disable multiple channels of instrumentation. A fault may still disable a single channel of instrumentation. However, the plant was designed to single failure criteria and could safely achieve shutdown under this scenario.

There are instances within the MCBs where cables are not adequately separated. Cable separation issues within the MCBs are being corrected by MR 93-025. Licensee Event Report 96-007, "Redundant Safety Related Circuits in the Same Main Control Board Wireway," provides an overview of the MCB wiring concerns and reviews the licensing and design bases. Separation will be provided for the MCB circuits in a time frame commensurate with their safety significance.

Modification MR 97-005 will be completed prior to startup of Unit 2. Safety Evaluation Report 97-025 determined that this modification did not constitute an Unreviewed Safety Question and was approved on 2/26/97.

**CONCLUSION**

Considering the above, MR 97-005 has eliminated all known Unit 2 separation concerns due to Non-Safety Related circuits supplied from Safety Related 120 VAC panels, outside the Main

April 4, 1997

**U2R22 RESTART ISSUE #31**

***Unit 2, 120 VAC Instrument Inverter Separation Concerns***

---

Control Boards. As the modification removed the potential for a single fault disabling multiple inverters, no 50.59 determination is required. (Safety Evaluation Report 97-025 was approved for the modification, and covered the installation and final configuration of these panels.) MR 93-025 will ensure that all Unit 2, 120 VAC cable separation concerns within the MCBs are corrected in a time frame commensurate with their safety significance (see LER 96-007).

I recommend closure of Unit 2 Restart Issue #31. Closure of this item does not determine that the Unit 1, 120 VAC system is satisfactory with respect to long term operability. Unit 1, 120 VAC separation concerns will be evaluated by CR 96-1699.



POINT BEACH UNIT 2 RESTART COMMITMENT  
INDEPENDENT REVIEW RESULTS

Commitment ID Number 31

Commitment Description

Evaluate the adequacy of coordination on the 120 VAC instrument bus system through a 50.59 evaluation or operability determination.

Should this evaluation identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the evaluation will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

Review Methodology

Review 50.59 evaluation and associated modification.

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

Discuss results with Responsible Person.

Review Results

Reviewed Restart Commitment #31 response documentation. The issue was identified as a breaker coordination problem due to a postulated fault on two non-safety related circuits (fed by Safety Related static inverters) that were inadequately separated. Modification MR 97-005 was created to remove the non-safety circuits from the inverters, thereby resolving the coordination issue. MR 97-005 is complete. A coordination calculation is not required.

Reviewed Final Design Description of MR 97-005. The scope of the modification did not change after its inception. Reviewed associated 10 CFR 50.59 evaluation SER 97-025. The evaluation is adequate. The scope and content of the evaluation is consistent with the scope content of the modification design description.

Discussed issue resolution with Responsible Person. No new Condition Reports were generated as a result of this evaluation.

POINT BEACH UNIT 2 RESTART COMMITMENT  
INDEPENDENT REVIEW RESULTS

Commitment ID Number 31

Recommendations

None. There were no concerns noted with this analysis and resulting modification. Unit 1 concerns associated with 120VAC separation are to be evaluated by Condition Report 96-1699.

Based on this independent review, there are no items involved with Restart Commitment #31 which would impede Unit 2 startup.

Reviewer: \_\_\_\_\_

\_\_\_\_\_ 5-1-97

## Unit 2, 120 VAC Channel Conflicts

### RED & BLUE CHANNEL CONFLICTS

TRAY	CABLE(S)	CHANNEL	FIXED?	REMARKS
CB06	2Y1101A	RED	YES	MR 97-005 resupplied panel 2Y11 and 2Y21. Therefore, a fault in any of these raceways will not cause multiple inverters to reach current limit.
CB07	2Y2103A	BLUE		
CB08	2Y2104A	BLUE		
CB09	2Y2105A	BLUE		
CB10	ZR2Y0203A	BLUE		

### RED & WHITE CHANNEL CONFLICTS

No Conflicts

### RED & YELLOW CHANNEL CONFLICTS

No Conflicts

### BLUE & WHITE CHANNEL CONFLICTS

TRAY	CABLE(S)	CHANNEL	FIXED?	REMARKS
2VV03	2Y2105S 2Y3103S	BLUE WHITE	YES	MR 97-005 resupplied panel 2Y21 and 2Y41. Therefore, a fault in this raceway will not cause multiple inverters to reach current limit.

### BLUE & YELLOW CHANNEL CONFLICTS

TRAY	CABLE(S)	CHANNEL	FIXED?	REMARKS
2-174A 2VT01 2VT02 2VT03	2Y2103S 2Y2104S 2Y4104S	BLUE BLUE YELLOW	YES	MR 97-005 resupplied panel 2Y21 and 2Y41. Therefore, a fault in any of these raceways will not cause multiple inverters to reach current limit.
2WN01 2-270A 2S617 2V270A 2VV03 2WB01 2WB02 2WB03 2WB04	2Y2105S 2Y4102S 2Y4103S	BLUE YELLOW YELLOW	YES	
2VW01	2Y2103S 2Y2104S 2Y4104S 2Y4110S	BLUE BLUE YELLOW YELLOW	YES	MR 97-005 resupplied panel 2Y21 and 2Y41. Therefore, a fault in this raceway will not cause multiple inverters to reach current limit.
2VW02 2WJ02	2Y2103S 2Y2104S 2Y4104S	BLUE BLUE YELLOW	YES	MR 97-005 resupplied panel 2Y21 and 2Y41. Therefore, a fault in any of these raceways will not cause multiple inverters to reach current limit.

## Unit 2, 120 VAC Channel Conflicts

---

### WHITE & YELLOW CHANNEL CONFLICTS

TRAY	CABLE(S)	CHANNEL	FIXED?	REMARKS
2VP01	2Y3103S 2Y4102S 2Y4103S 2Y4110S	WHITE YELLOW YELLOW YELLOW	YES	MR 97-005 resupplied panel 2Y31 and 2Y41. Therefore, a fault in this raceway will not cause multiple inverters to reach current limit.
2VV01 2VV02 2VV03	2Y3103S 2Y4102S 2Y4103S	WHITE YELLOW YELLOW	YES	MR 97-005 resupplied panel 2Y31 and 2Y41. Therefore, a fault in any of these raceways will not cause multiple inverters to reach current limit.

01 Description	U2 RED & BLUE CHANNEL CONFLICTS
02 System code(s)	
03 Basic raceway designation(s)	
07 Basic cable designation(s)	
08 Raceway(s)	
10 Cable(s)	
11 Cable destination(s)	
12 Engineer item(s) for raceway(s)	
13 Engineer item(s) for cable(s)	
38 Safety parameter	All inclusive
39 Implemented parameter	Design and installed raceway(s)
41 Type analysis	Matches any criteria
43 User defined search	WITH Cable "[2Y01]" "[2Y11]" "[2Y101]" " AND WITH Cable "[2Y02]" "[2Y21]" "[2Y102]"
44 Sort parameter	Alphabetical
45 Print parameter	Raceway, Walkdown Fire Zone, Cable
46 Sub heading	
47 Sub footing	

Raceway..... Walkdown Cable.....

Fire....

Zone....

12

A1V30474  
 A1V30475\*5  
 1V3047  
 A2\*UNA12  
 A2926A+  
 A2926A-  
 A2AC53\*  
 A2ACV3\*  
 A2B36AG\*G  
 2B36AC  
 A2B36AG1\*1  
 2B36AC1  
 A2B36AP\*P  
 2B36AP  
 A2B36AT1\*T1  
 2B36AT1  
 A2B39AG1  
 A2B39AT21  
 A2B39AW1\*  
 A2NA8G2\*G2  
 2NA8G0  
 A2NA8R2\*R2  
 2NA8R2  
 A2NA912\*11  
 2NA912  
 A2SIAC\*\*  
 A2V1723G\*G  
 2V1723G  
 A2V1723R\*R  
 2V1723R  
 A2V20835\*5  
 A2V20836\*6  
 A2V2083U1\*U1  
 A2V20845\*5  
 A2V20846\*6  
 A2V2084U1\*U1  
 A2V825A01  
 A2V825AC1\*C1  
 A2V825AG\*G  
 2V825AG  
 A2V825AR\*R  
 2V825AR  
 A2V826C01\*01  
 A2V826CC\*5  
 2V826CC  
 A2V826CC1\*C1  
 A2V826CG\*G  
 2V826CG  
 A2V826CO\*3  
 2V826CO

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

A2V126CR  
 A2V850AX2\*1  
 2V850  
 A2V851AX2\*X2  
 A2VAX16  
 A2VBX16  
 A2Y01G  
 A2Y01X  
 A2Y01X1\*2Y01  
 X  
 A4\*UOK12  
 AN\*  
 B\*2VCK16  
 B\*2VDX16  
 B04 2V871B0  
 B2926B+  
 B2926B-  
 B2926B13  
 B2926BM  
 B2926BX+\*  
 B2926BX-\*  
 B2B26AP1  
 B2B26AP1\*  
 B2B26AW1  
 B2B26AW1\*  
 B2B26BP1  
 B2B26BP1\*  
 B2B27AP  
 B2B27AW  
 B2B29AG\*2B29  
 G  
 B2B29AG1\*2B2  
 9G1  
 B2B29AP\*2B29  
 P  
 B2B29AT1\*2B2  
 9T1  
 B2CI21XP  
 B2V826A0\*3  
 2V826A0  
 B2V826A01\*4  
 2V826A01  
 B2V826AC\*1  
 2V826AC  
 B2V826AC1\*5  
 2V826AC1  
 B2V826AC2\*0  
 2V826AC2  
 B2V851B33X  
 B2V851BX2

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

B2V870BWC\*1X  
 33  
 B2V870BX2\*X2  
 B2V871BC2\*C2  
 B2Y02X\*  
 B2Y02Y\*  
 BN\*\*\*  
 BUAA11\*2VDX1  
 BUAL10\*2VCXP  
 BUAL11\*3

JET12	318	1A301C
		1A401D
		1A40B
		1A52B
		1A55C
		1A55E
		1A56G
		1A56H
		1A63C
		1B03PTA
		1K0012D
		1X0012F
		1K0013D
		1K0013E
		1K0123A
		1TG01M
		1TG01N
		1TG02D
		1X401H
		1X401J
		1Y0201A
		1Y0203A
		1Y0301A
		1Y0611A
		2A301C
		2Y0101A
		2Y0201A
		2Y0301A
		2Y0401A
		D1603A
		ZA1A501C
		ZA1A57G
		ZA1A58C
		ZA1B15CB
		ZA1B16BB
		ZA1B16BC
		ZA1B16CB
		ZA1NA111A
		ZA1NA112A



Raceway..... Walkdown Cable.....  
Fire....  
Zone....

ZA1NA113A  
ZR2Y0203A

CB06            237        2311HA  
                 238        2311HC  
                         2311MA  
                         2311MC  
                         2312HA  
                         2312HC  
                         2312MA  
                         2312MC  
                         2314BB  
                         2314DB  
                         2315DA  
                         2315DB  
                         2315FA  
                         2315FB  
                         2318DA  
                         2J08A  
                         2J08B  
                         2J08C  
                         2J08D  
                         2J08E  
                         2J08F  
                         2J08G  
                         2J08H  
                         2J100A  
                         2J105A  
                         2J106A  
                         2J107A  
                         2J108A  
                         2J109A  
                         2J110A  
                         2J130A  
                         2J166A  
                         2K0058A  
                         2K0058B  
                         2K0058C  
                         2K0058D  
                         2K0058E  
                         2K0058F  
                         2K0058G  
                         2K0058H  
                         2K4202A  
                         2NC189B  
                         2Y0520A  
                         2Y0602A  
                         2Y1101A  
                         2Y2103A  
                         2Y2104A

Raceway..... Walkdown Cable.....  
Fire.....  
Zone.....

2Y2105A  
2Y2106A  
FP107A  
FP201A  
J60H  
RA020B  
ZR2Y0203A

CB07 238

2314BB  
2314DB  
2315DA  
2315DB  
2315FA  
2315FB  
2318DA  
2J100A  
2J105A  
2J106A  
2J107A  
2J108A  
2J109A  
2J110A  
2J130A  
2K4202A  
2Y0520A  
2Y1101A  
2Y2103A  
2Y2104A  
2Y2105A  
2Y2106A  
FP107A  
FP201A  
J60H  
RA020B  
ZR2Y0203A

CB08 238

2314BB  
2314DB  
2315DA  
2315DB  
2315FA  
2315FB  
2318DA  
2J100A  
2J105A  
2J106A  
2J107A  
2J108A  
2J109A  
2J110A

Raceway..... Walkdown Cable.....

Fire....

Zone....

2J110A  
 2K4202A  
 2Y0520A  
 2Y1101A  
 2Y2103A  
 2Y2104A  
 2Y2105A  
 2Y2106A  
 FP107A  
 FP201A  
 J60H  
 RA020B  
 ZR2Y0203A

CR09 238

2314BB  
 2314DB  
 2315DA  
 2315DB  
 2315FA  
 2315FB  
 2318DA  
 2J100A  
 2J105A  
 2J106A  
 2J107A  
 2J108A  
 2J109A  
 2J110A  
 2J130A  
 2K4202A  
 2Y0520A  
 2Y1101A  
 2Y2103A  
 2Y2104A  
 2Y2105A  
 2Y2106A  
 FP107A  
 FP201A  
 J60H  
 RA020B  
 ZR2Y0203A

CB10 238

2314BB  
 2314DB  
 2315DA  
 2315DB  
 2315FA  
 2315FB  
 2318DA  
 23210CA

01 Description	U2 RED & WHITE CHANNEL CONFLICTS
02 System code(s)	
03 Basic raceway designation(s)	
07 Basic cable designation(s)	
08 Raceway(s)	
10 Cable(s)	
11 Cable destination(s)	
12 Engineer item(s) for raceway(s)	
13 Engineer item(s) for cable(s)	
38 Safety parameter	All inclusive
39 Implemented parameter	Design and installed raceway(s)
41 Type analysis	Matches any criteria
43 User defined search	WITH Cable "[2Y01]" "[2Y11]" "[2Y101]" " AND WITH Cable "[2Y03]" "[2Y31]" "[2Y103]"
44 Sort parameter	Alphabetical
45 Print parameter	Raceway, Walkdown Fire Zone, Cable
46 Sub heading	
47 Sub footing	

Raceway..... Walkdown Cable.....  
 Fire.....  
 Zone.....

1ET12        318        1A301C  
                          1A401D  
                          1A40B  
                          1A52B  
                          1A55C  
                          1A55E  
                          1A56G  
                          1A56H  
                          1A63C  
                          1B03PTA  
                          1K0012D  
                          1K0012F  
                          1K0013D  
                          1K0013E  
                          1K0123A  
                          1TG01M  
                          1TG01N  
                          1TG02D  
                          1X401H  
                          1X401J  
                          1Y0201A  
                          1Y0203A  
                          1Y0301A  
                          1Y0611A  
                          2A301C  
                          2Y0101A  
                          2Y0201A  
                          2Y0301A  
                          2Y0401A  
                          D1603A  
                          ZA1A501C  
                          ZA1A57G  
                          ZA1A58C  
                          ZA1B15CB  
                          ZA1B16BB  
                          ZA1B16BC  
                          ZA1B16CB  
                          ZA1NA111A  
                          ZA1NA112A  
                          ZA1NA113A  
                          ZR2Y0203A

R37            318        1Y0101A  
                          1Y0201A  
                          1Y0301A  
                          1Y0401A  
                          2A47H  
                          2B04PTA  
                          2B42CC  
                          2B44BH

Raceway..... Walkdown Cable.....

Fire....

Zone....

2C9000A  
2C9001A  
2C9002A  
2K0012G  
2K0021A  
2K0021B  
2K0023B  
2K0035A  
2K0037A  
2K0038A  
2K0039A  
2X401F  
2X401G  
2X401H  
2X401L  
2Y0101A  
2Y0201A  
2Y0301A  
2Y0401A  
D1801A  
D1807A  
D1813A  
D1814A  
FBS12A  
FBS12B  
FBS12C  
FBS23A  
FBS23B  
FBS23C  
H0601A1  
H0601B1  
H32H  
K0070A  
K0079A  
K0089A  
K0403A  
K0403B  
K0409A  
K0551A  
KA007B  
SPR001  
TL008A  
TL009A  
TL010A  
ZD2A69C  
ZD2A89C  
ZD2A92B  
ZD2B25BB  
ZD2B25BC  
ZD2B26CB

Raceway..... Walkdown Cable.....  
Fire....  
Zone.....

ZD2B26CE  
ZD2B32CB  
ZDG0401EE  
ZDG0401P  
ZF2A601E  
ZF2A601F  
ZF2A67C  
ZF2A67E  
ZFG0201D  
ZFG0201E  
ZFG0201N  
ZFG0201R  
ZFG0201S

2 records listed.

01 Description	U2 RED & YELLOW CHANNEL CONFLICTS
02 System code(s)	
03 Basic raceway designation(s)	
07 Basic cable designation(s)	
08 Raceway(s)	
10 Cable(s)	
11 Cable destination(s)	
12 Engineer item(s) for raceway(s)	
13 Engineer item(s) for cable(s)	
38 Safety parameter	All inclusive
39 Implemented parameter	Design and installed raceway(s)
41 Type analysis	Matches any criteria
43 User defined search	WITH Cable "[2Y01]" "[2Y11]" "[2Y101]" " AND WITH Cable "[2Y04]" "[2Y41]" "[2Y104]"
44 Sort parameter	Alphabetical
45 Print parameter	Raceway, Walkdown, Fire Zone, Cable
46 Sub heading	
47 Sub footing	



Raceway..... Walkdown Cable.....  
 Fire.....  
 Zone.....

1ET12	318	1A301C
		1A401D
		1A40B
		1A52B
		1A55C
		1A55E
		1A56G
		1A56H
		1A63C
		1B03PTA
		1K0012D
		1K0012F
		1K0013D
		1K0013E
		1K0123A
		1TG01M
		1TG01N
		1TG02D
		1X401H
		1X401J
		1Y0201A
		1Y0203A
		1Y0301A
		1Y0611A
		2A301C
		2Y0101A
		2Y0201A
		2Y0301A
		2Y0401A
		D1603A
		2A1A501C
		ZA1A57G
		ZA1A58C
		ZA1B15CB
		ZA1B16BB
		ZA1B16BC
		ZA1B16CB
		ZAINA111A
		ZAINA112A
		ZAINA113A
		ZR2Y0203A

R37	318	1Y0101A
		1Y0201A
		1Y0301A
		1Y0401A
		2A47H
		2B04PTA
		2B42CC
		2B44BH

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

2C9000A  
2C9001A  
2C9002A  
2K0012G  
2K0021A  
2K0021B  
2K0023B  
2K0035A  
2K0037A  
2K0038A  
2K0039A  
2X401F  
2X401G  
2X401H  
2X401L  
2Y0101A  
2Y0201A  
2Y0301A  
2Y0401A  
D1801A  
D1807A  
D1813A  
D1814A  
FBS12A  
FBS12B  
FBS12C  
FBS21A  
FBS23B  
FBS23C  
H0601A1  
H0601B1  
H32H  
K0070A  
K0079A  
K0089A  
K0403A  
K0403B  
K0409A  
K0551A  
KA007B  
SPR001  
TL008A  
TL009A  
TL010A  
ZD2A69C  
ZD2A89C  
ZD2A92B  
ZD2B25BB  
ZD2B25BC  
ZD2B26CH

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

ZD2B26CE  
ZD2B32CB  
ZDG0401EE  
ZDG0401F  
ZF2A601E  
ZF2A601F  
ZF2A67C  
ZF2A67E  
ZFG0201D  
ZFG0201E  
ZFG0201N  
ZFG0201R  
ZFG0201S

2 records listed.

01 Description	U2 BLUE & WHITE CHANNEL CONFLICTS
02 System code(s)	
03 Basic raceway designation(s)	
07 Basic cable designation(s)	
08 Raceway(s)	
10 Cable(s)	
11 Cable destination(s)	
12 Engineer item(s) for raceway(s)	
13 Engineer item(s) for cable(s)	
38 Safety parameter	All inclusive
39 Implemented parameter	Design and installed raceway(s)
41 Type analysis	Matches any criteria
43 User defined search	WITH Cable "[2Y02]" "[2Y21]" "[2Y102]" " AND WITH Cable "[2Y03]" "[2Y31]" "[2Y103]"
44 Sort parameter	Alphabetical
45 Print parameter	Raceway, Walkdown Fire Zone, Cable
46 Sub heading	
47 Sub footing	

Raceway..... Walkdown Cable.....

Fire....

Zone....

1ET12	318	1A301C
		1A401D
		1A40B
		1A52B
		1A55C
		1A55E
		1A56G
		1A56H
		1A63C
		1B03PTA
		1K0012D
		1K0012F
		1K0013D
		1X0013E
		1K0123A
		1TG01M
		1TG01N
		1TG02D
		1X401H
		1X401J
		1Y0201A
		1Y0203A
		1Y0301A
		1Y0611A
		2A301C
		2Y0101A
		2Y0201A
		2Y0301A
		2Y0401A
		D1603A
		2A1A501C
		2A1A57G
		2A1A58C
		2A1B15CB
		2A1B16BB
		2A1B16BC
		2A1B16CB
		2A1NA111A
		2A1NA112A
		2A1NA113A
		2R2Y0203A

2S617	615	2A24H
	618	2B43AS
		2B46AS
		2J100S
		2K3101C
		2K3111A
		2K3134A
		2K4199T

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2K4212S  
 2Y2105S  
 2Y3131S  
 2Y4102S  
 2Y4103S

2VV03 61S  
 61B

2314BS  
 23210CS  
 23210CT  
 23211CS  
 23211CT  
 2327JS  
 2327JT  
 2427CS  
 2427CT  
 2B43AS  
 2B46AS  
 2IC001E  
 2IC001F  
 2IC002E  
 2IC002F  
 2IC003E  
 2IC003F  
 2IC004E  
 2IC004F  
 2J100S  
 2J106S  
 2J113S  
 2J115S  
 2J117S  
 2J118S  
 2J119S  
 2J120S  
 2J130S  
 2J89B  
 2J89C  
 2K5020C  
 2K5020D  
 2Y2105S  
 2Y3103S  
 2Y3104S  
 2Y3105S  
 2Y4102S  
 2Y4103S

2WB01 61S

2313MT  
 2314BS  
 2314BT  
 2314DS  
 2314DT

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

- 2314HS
- 2317MT
- 2318MT
- 2319BC
- 2319BD
- 23211CS
- 23211CT
- 2A24H
- 2B43AS
- 2B46AS
- 2IC001C
- 2IC001D
- 2IC001K
- 2IC002C
- 2IC003D
- 2ILRT005A
- 2ILRT006A
- 2ILRT007A
- 2ILRT008A
- 2ILRT009A
- 2ILRT010A
- 2ILRT011A
- 2ILRT012A
- 2ILRT013A
- 2ILRT014A
- 2ILRT015A
- 2ILRT016A
- 2ILRT017A
- 2ILRT018A
- 2ILRT019A
- 2ILRT020A
- 2ILRT021A
- 2ILRT022A
- 2ILRT023A
- 2ILRT024A
- 2ILRT025A
- 2ILRT026A
- 2ILRT027A
- 2ILRT028A
- 2ILRT045A
- 2ILRT046A
- 2ILRT047A
- 2ILRT048A
- 2ILRT049A
- 2ILRT050A
- 2ILRT051A
- 2ILRT052A
- 2ILRT053A
- 2ILRT054A
- 2ILRT055A

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

2ILRT056A  
2ILRT057A  
2ILRT058A  
2ILRT059A  
2ILRT060A  
2ILRT061A  
2ILRT062A  
2ILRT063A  
2ILRT064A  
2ILRT065A  
2ILRT066A  
2ILRT067A  
2ILRT068A  
2ILRT069A  
2ILRT070A  
2ILRT071A  
2ILRT072A  
2ILRT073A  
2ILRT074A  
2ILRT080A  
2ILRT081A  
2ILRT082A  
2ILRT083A  
2ILRT084A  
2ILRT092A  
2ILRT093A  
2ILRT094A  
2ILRT095A  
2J08S  
2J08W  
2J100S  
2K3101C  
2K3111A  
2K3134A  
2K4199T  
2NC189C  
2Y2105S  
2Y3101S  
2Y4102S  
2Y4103S  
FP5219B  
FP5220B  
FP5221B  
FP5222B  
FP5223B  
FP5224B  
FP5225B  
FP5226B  
FP5227B  
FP5228B



Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

- FP5229B
- FP5230B
- FP5231B
- FP5232B
- FP5233B
- FP5234B
- FP5235B
- FP5236B
- FP5237B
- FP5238B
- FP5239B
- FP5240B
- FP5241B
- FP5242B
- FP5243B
- FP5244B
- FP5245B
- FP5246B
- FP5247B
- FP5248B
- FP5249B
- FP5250B
- FP5251B
- FP5252B
- FP5253B
- FP5254B
- FP5255B
- FP5256B
- FP5257B
- FP5258B
- FP5311AB
- FP5311BB
- FP5311CB
- FP5511AA
- FP5511BB
- FP5511CB
- PP2005S
- PP2005T
- PP6001A
- PP6003A
- PP6005A
- PP6007A

2WB02      615      2313MT  
 2314BS  
 2314BT  
 2314DS  
 2314DT  
 2314HS  
 2317MT

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

2318MT  
2319BC  
2319BD  
23211CS  
23211CT  
2A24H  
2B43AS  
2B46AS  
2ILRT005A  
2ILRT006A  
2ILRT007A  
2ILRT008A  
2ILRT009A  
2ILRT010A  
2ILRT011A  
2ILRT012A  
2ILRT013A  
2ILRT014A  
2ILRT015A  
2ILRT016A  
2ILRT017A  
2ILRT018A  
2ILRT019A  
2ILRT020A  
2ILRT021A  
2ILRT022A  
2ILRT023A  
2ILRT024A  
2ILRT025A  
2ILRT026A  
2ILRT027A  
2ILRT028A  
2ILRT045A  
2ILRT046A  
2ILRT047A  
2ILRT048A  
2ILRT049A  
2ILRT050A  
2ILRT051A  
2ILRT052A  
2ILRT053A  
2ILRT054A  
2ILRT055A  
2ILRT056A  
2ILRT057A  
2ILRT058A  
2ILRT059A  
2ILRT060A  
2ILRT061A  
2ILRT062A

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2ILRT063A  
 2ILRT064A  
 2ILRT065A  
 2ILRT066A  
 2ILRT067A  
 2ILRT068A  
 2ILRT069A  
 2ILRT070A  
 2ILRT071A  
 2ILRT072A  
 2ILRT073A  
 2ILRT074A  
 2ILRT080A  
 2ILRT081A  
 2ILRT082A  
 2ILRT083A  
 2ILRT084A  
 2ILRT092A  
 2ILRT093A  
 2ILRT094A  
 2ILRT095A  
 2J08S  
 2J08W  
 2J100S  
 2K3101C  
 2K3111A  
 2K3134A  
 2K4199T  
 2NC189C  
 2Y2105S  
 2Y3101S  
 2Y4102S  
 2Y4103S  
 PP2005S  
 PP2005T  
 PP6001A  
 PP6003A  
 PP6005A  
 PP6007A

2WB03        615        2313MT  
 2314BS  
 2314BT  
 2314DS  
 2314DT  
 2314HS  
 2317MT  
 2318MT  
 2319BC  
 2319BD

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

23211CS  
23211CT  
2A24H  
2B43AS  
2B46AS  
2ILRT005A  
2ILRT006A  
2ILRT007A  
2ILRT008A  
2ILRT009A  
2ILRT010A  
2ILRT011A  
2ILRT012A  
2ILRT013A  
2ILRT014A  
2ILRT015A  
2ILRT016A  
2ILRT017A  
2ILRT018A  
2ILRT019A  
2ILRT020A  
2ILRT021A  
2ILRT022A  
2ILRT023A  
2ILRT024A  
2ILRT025A  
2ILRT026A  
2ILRT027A  
2ILRT028A  
2ILRT045A  
2ILRT046A  
2ILRT047A  
2ILRT048A  
2ILRT049A  
2ILRT050A  
2ILRT051A  
2ILRT052A  
2ILRT053A  
2ILRT054A  
2ILRT055A  
2ILRT056A  
2ILRT057A  
2ILRT058A  
2ILRT059A  
2ILRT060A  
2ILRT061A  
2ILRT062A  
2ILRT063A  
2ILRT064A  
2ILRT065A

Raceway..... Walkdown Cable.....  
 Fire.....  
 Zone.....

- 2ILRT066A
- 2ILRT067A
- 2ILRT068A
- 2ILRT069A
- 2ILRT070A
- 2ILRT071A
- 2ILRT072A
- 1ILRT073A
- 2ILRT074A
- 2ILRT080A
- 2ILRT081A
- 2ILRT082A
- 2ILRT083A
- 2ILRT084A
- 2ILRT092A
- 2ILRT093A
- 2ILRT094A
- 2ILRT095A
- 2J08S
- 2J08W
- 2J100S
- 2K3101C
- 2K3111A
- 2K3134A
- LY4199T
- 2NC189C
- 2Y2105S
- 2Y3101S
- 2Y4102S
- 2Y4103S
- PF2005S
- PF2005T
- PP6001A
- PP6003A
- PP6005A
- PP6007A

3WB04	615	2313MT
	618	2314DS
		2314DT
		2314HS
		2317MT
		2318MT
		2319BC
		2319BD
		23211CS
		23211CT
		2A24H
		2B43AS
		2B46AS

Raceway..... Walkdown Cable.....  
 Fire.....  
 Zone.....

2J08S  
 2J08W  
 2J100S  
 2K3101C  
 2K3111A  
 2K3134A  
 2K4199T  
 2NC189C  
 2Y2105S  
 2Y3101S  
 2Y4102S  
 2Y4103S  
 PP2005S  
 PP2005T  
 PP6001A  
 PP6003A  
 PP6005A  
 PP6007A

2WN01	608	2313MT
	611	2314DS
	615	2314DT
		2314HS
		2317MT
		2318MT
		2319BC
		2319BD
		23211CS
		23211CT
		2A24H
		2B43AS
		2B46AS
		2J08S
		2J08W
		2J100S
		2K3101C
		2K3111A
		2K3134A
		2K4199T
		2K4212S
		2NC189C
		2Y2105S
		2Y3101S
		2Y4102S
		2Y4103S
		PP6007A
		ZC2NA016B

R37	318	1Y0101A
		1Y0201A

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

1Y0301A  
 1Y0401A  
 2A47H  
 2B04PTA  
 2B42CC  
 2B44BH  
 2C9000A  
 2C9001A  
 2C9002A  
 2K0012G  
 2K0021A  
 2K0021B  
 2K0023B  
 2K0035A  
 2K0037A  
 2K0038A  
 2K0039A  
 2X401F  
 2X401G  
 2X401H  
 2X401L  
 2Y0101A  
 2Y0201A  
 2Y0301A  
 2Y0401A  
 D1801A  
 D1807A  
 D1813A  
 D1814A  
 FBS12A  
 FBS12B  
 FBS12C  
 FBS23A  
 FBS23B  
 FBS23C  
 H0601A1  
 H0601B1  
 H32H  
 K0070A  
 K0079A  
 K0089A  
 K0403A  
 K0403B  
 K0409A  
 K0551A  
 KA007B  
 SPR001  
 TL008A  
 TL009A  
 TL010A

Raceway.... Walkdown Cable.....  
Fire....  
Zone....

- ZD2A69C
- ZD2A89C
- ZD2A92B
- ZD2B25BB
- ZD2B25BC
- ZD2B26CB
- ZD2B26CE
- ZD2B32CB
- ZDG0401EE
- ZDG0401P
- ZF2A601E
- ZF2A601F
- ZF2A67C
- ZF2A67E
- ZFG0201D
- ZFG0201E
- ZFG0201N
- ZFG0201R
- ZFG0201S

9 records listed.



01 Description U2 BLUE & YELLOW CHANNEL CONFLICTS  
02 System code(s)  
03 Basic raceway designation(s)  
07 Basic cable designation(s)  
08 Raceway(s)  
10 Cable(s)  
11 Cable destination(s)  
12 Engineer item(s) for raceway(s)  
13 Engineer item(s) for cable(s)  
38 Safety parameter All inclusive  
39 Implemented parameter Design and installed raceway(s)  
41 Type analysis Matches any criteria  
43 User defined search WITH Cable "[2Y02]" "[2Y21]" "[2Y102]"  
" AND WITH Cable "[2Y04]" "[2Y41]" "[2Y104]"  
44 Sort parameter Alphabetical  
45 Print parameter Raceway, Walkdown Fire Zone, Cable  
46 Sub heading  
47 Sub footing

Raceway..... Walkdown Cable.....  
 Fire.....  
 Zone.....

1BT12	318	1A301C
		1A401D
		1A40B
		1A52B
		1A55C
		1A55E
		1A56G
		1A56H
		1A63C
		1B03PTA
		1K0012D
		1K0012F
		1K0013D
		1K0013E
		1K0123A
		1TG01M
		1TG01N
		1TG02D
		1X401H
		1X401J
		1Y0201A
		1Y0203A
		1Y0301A
		1Y0611A
		2A301C
		2Y0101A
		2Y0201A
		2Y0301A
		2Y0401A
		D1603A
		ZA1A501C
		ZA1A57G
		ZA1A58C
		ZA1B15CB
		ZA1B16BB
		ZA1B16BC
		ZA1B16CB
		ZA1NA111A
		ZA1NA112A
		ZA1NA113A
		ZR2Y0203A

2-174A	611	2K3135A
		2Y2103S
		2Y2104S
		2Y4104S

2-270A	608	23211CS
	618	23211CT
		23100S

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2K3134A  
 2K4199T  
 2Y2105S  
 2Y4102S  
 2Y4103S

2S617      615      2A24H  
           618      2B43AS  
                   2B46AS  
                   2J100S  
                   2K3101C  
                   2K3111A  
                   2K3134A  
                   2K4199T  
                   2K4212S  
                   2Y2105S  
                   2Y3101S  
                   2Y4102S  
                   2Y4103S

2V270A      608      23211CS  
           611      23211CT  
                   2K3134A  
                   2K4199T  
                   2Y2105S  
                   2Y4102S  
                   2Y4103S

2V430      615      2427PS  
           618      2427FT  
                   2Y2106S  
                   2Y4106S  
                   ZD2J135S  
                   ZD2J135S\*

2VT01      608      2I443M  
           611      2I444M  
                   2I445M  
                   2I446M  
                   2I448M  
                   2I453M  
                   2I454M  
                   2I455M  
                   2K3135A  
                   2K4199S  
                   2K4199T  
                   2NC229C  
                   2Y2103S  
                   2Y2104S  
                   2Y4104S

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2VT02        611        2I443M  
                                          2I444M  
                                          2I445M  
                                          2I446M  
                                          2I448M  
                                          2I453M  
                                          2I454M  
                                          2I455M  
                                          2K3135A  
                                          2K4199S  
                                          2K4199T  
                                          2NC229C  
                                          2Y2103S  
                                          2Y2104S  
                                          2Y4104S

2VT03        611        2I443M  
                                          2I444M  
                                          2I445M  
                                          2K3135A  
                                          2Y2103S  
                                          2Y2104S  
                                          2Y4104S

2VV03        616        2314BS  
                                          616        23210CS  
                                          23210CT  
                                          23211CS  
                                          23211CT  
                                          1377JS  
                                          2327JT  
                                          2427CS  
                                          2427CT  
                                          2B43AS  
                                          2B46AS  
                                          2IC001E  
                                          2IC001F  
                                          2IC002E  
                                          2IC002F  
                                          2IC003E  
                                          2IC003F  
                                          2IC004E  
                                          2IC004F  
                                          2J100S  
                                          2J106S  
                                          2J113S  
                                          2J115S  
                                          2J117S  
                                          2J118S  
                                          2J119S

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2J120S  
 2J130S  
 2J89B  
 2J49C  
 2K5020C  
 2K5020D  
 2Y2105S  
 2Y3103S  
 2Y3104S  
 2Y3105S  
 2Y4102S  
 2Y4103S

2VW01 608 2325CS  
 611 2325CT  
 615 2425CS  
 618 2425CT  
 2A29H  
 2I443M  
 2I444M  
 2I445M  
 2I446M  
 2I448M  
 2I453M  
 2I454M  
 2I455M  
 2J07S  
 2J08U  
 2J08V  
 2J08Y  
 2J08Z  
 2J106S  
 2J107S  
 2J108S  
 2J89B  
 2J89C  
 2K3101B  
 2K3101C  
 2K3102A  
 2K3111A  
 2K3112A  
 2K3134A  
 2K3135A  
 2K4199S  
 2K4199T  
 2K5020C  
 2K5020D  
 2NC229C  
 2Y2103S  
 2Y2104S

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2Y4104S  
 2Y4110S

2VW02      615      2319DC  
 2319DD  
 2325CS  
 2325CT  
 2425CS  
 2425CT  
 2A24H  
 2A29H  
 2I443M  
 2I444M  
 2I445M  
 2I446M  
 2I448M  
 2I453M  
 2I454M  
 2I455M  
 2IC001C  
 2IC001D  
 2IC001K  
 2IC002C  
 2IC002D  
 2IC003C  
 2IC003D  
 2IC004C  
 2IC004D  
 2J07S  
 2J07U  
 2J08U  
 2J08V  
 2J08Y  
 2J08Z  
 2J107S  
 2J108S  
 2J89C  
 2K3101B  
 2K3101C  
 2K3102A  
 2K3111A  
 2K3112A  
 2K3134A  
 2K4199S  
 2K4199T  
 2NC229C  
 2Y0602B  
 2Y2103S  
 2Y2104S  
 2Y4104S

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

PP6001A  
 PP6003A  
 PP6005A  
 PP6007A

2WB01 615 2313MT  
 2314BS  
 2314BT  
 2314DS  
 2314DT  
 2314HS  
 2317MT  
 2318MT  
 2319BC  
 2319BD  
 23211CS  
 23211CT  
 2A24H  
 2B43AS  
 2B46AS  
 2IC001C  
 2IC001D  
 2IC001K  
 2IC002C  
 2IC002D  
 2ILRT005A  
 2ILRT006A  
 2ILRT007A  
 2ILRT008A  
 2ILRT009A  
 2ILRT010A  
 2ILRT011A  
 2ILRT012A  
 2ILRT013A  
 2ILRT014A  
 2ILRT015A  
 2ILRT016A  
 2ILRT017A  
 2ILRT018A  
 2ILRT019A  
 2ILRT020A  
 2ILRT021A  
 2ILRT022A  
 2ILRT023A  
 2ILRT024A  
 2ILRT025A  
 2ILRT026A  
 2ILRT027A  
 2ILRT028A  
 2ILRT045A

Raceway..... Walkdown Cable.....

Fire....

Zone....

2ILRT046A  
2ILRT047A  
2ILRT048A  
2ILRT049A  
2ILRT050A  
2ILRT051A  
2ILRT052A  
2ILRT053A  
2ILRT054A  
2ILRT055A  
2ILRT056A  
2ILRT057A  
2ILRT058A  
2ILRT059A  
2ILRT060A  
2ILRT061A  
2ILRT062A  
2ILRT063A  
2ILRT064A  
2ILRT065A  
2ILRT066A  
2ILRT067A  
2ILRT068A  
2ILRT069A  
2ILRT070A  
2ILRT071A  
2ILRT072A  
2ILRT073A  
2ILRT074A  
2ILRT080A  
2ILRT081A  
2ILRT082A  
2ILRT083A  
2ILRT084A  
2ILRT092A  
2ILRT093A  
2ILRT094A  
2ILRT095A  
2J08S  
2J08W  
2J100S  
2K3101C  
2K3111A  
2K3134A  
2K4199T  
2NC189C  
2Y2105S  
2Y3101S  
2Y4102S  
2Y4103S



Raceway..... Walkdown Cable.....

Fire....

Zone....

- FP5219B
- FP5220B
- FP5221B
- FP5222B
- FP5223B
- FP5224B
- FP5225B
- FP5226B
- FP5227B
- FP5228B
- FP5229B
- FP5230B
- FP5231B
- FP5232B
- FP5233B
- FP5234B
- FP5235B
- FP5236B
- FP5237B
- FP5238B
- FP5239B
- FP5240B
- FP5241B
- FP5242B
- FP5243B
- FP5244B
- FP5245B
- FP5246B
- FP5247B
- FP5248B
- FP5249B
- FP5250B
- FP5251B
- FP5252B
- FP5253B
- FP5254B
- FP5255B
- FP5256B
- FP5257B
- FP5258B
- FP5311AB
- FP5311BB
- FP5311CB
- FP5511AB
- FP5511BB
- FP5511CB
- FP2005S
- FP2005T
- FP6001A
- FP6003A

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

PP6005A  
 PP6007A

2WB02	615	2313MT
		2314BS
		2314BT
		2314DS
		2314DT
		2314HS
		2317MT
		2318MT
		2319BC
		2319BD
		23211CS
		23211CT
		2A24H
		2B43AS
		2B46AS
		2ILRT005A
		2ILRT006A
		2ILRT007A
		2ILRT008A
		2ILRT009A
		2ILRT010A
		2ILRT011A
		2ILRT012A
		2ILRT013A
		2ILRT014A
		2ILRT015A
		2ILRT016A
		2ILRT017A
		2ILRT018A
		2ILRT019A
		2ILRT020A
		2ILRT021A
		2ILRT022A
		2ILRT023A
		2ILRT024A
		2ILRT025A
		2ILRT026A
		2ILRT027A
		2ILRT028A
		2ILRT045A
		2ILRT046A
		2ILRT047A
		2ILRT048A
		2ILRT049A
		2ILRT050A
		2ILRT051A
		2ILRT052A

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

- 2ILRT053A
- 2ILRT054A
- 2ILRT055A
- 2ILRT056A
- 2ILRT057A
- 2ILRT058A
- 2ILRT059A
- 2ILRT060A
- 2ILRT061A
- 2ILRT062A
- 2ILRT063A
- 2ILRT064A
- 2ILRT065A
- 2ILRT066A
- 2ILRT067A
- 2ILRT068A
- 2ILRT069A
- 2ILRT070A
- 2ILRT071A
- 2ILRT072A
- 2ILRT073A
- 2ILRT074A
- 2ILRT080A
- 2ILRT081A
- 2ILRT082A
- 2ILRT083A
- 2ILRT084A
- 2ILRT092A
- 2ILRT093A
- 2ILRT094A
- 2ILRT095A
- 2J08S
- 2J08W
- 2J100S
- 2K3101C
- 2K3111A
- 2K3134A
- 2K4199T
- 2NC189C
- 2Y2105S
- 2Y3101S
- 2Y4102S
- 2Y4103S
- PP2005S
- PP2005T
- PP6001A
- PP6003A
- PP6005A
- PP6007A

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2WB03 615 2313MT  
 2314BS  
 2314BT  
 2314DS  
 2314DT  
 2314HS  
 231 MT  
 231 BC  
 231 BC  
 2319BD  
 23211CS  
 23211CT  
 2A24H  
 2B43AS  
 2B46AS  
 2ILRT005A  
 2ILRT006A  
 2ILRT007A  
 2ILRT008A  
 2ILRT009A  
 2ILRT010A  
 2ILRT011A  
 2ILRT012A  
 2ILRT013A  
 2ILRT014A  
 2ILRT015A  
 2ILRT016A  
 2ILRT017A  
 2ILRT018A  
 2ILRT019A  
 2ILRT020A  
 2ILRT021A  
 2ILRT022A  
 2ILRT023A  
 2ILRT024A  
 2ILRT025A  
 2ILRT026A  
 2ILRT027A  
 2ILRT028A  
 2ILRT045A  
 2ILRT046A  
 2ILRT047A  
 2ILRT048A  
 2ILRT049A  
 2ILRT050A  
 2ILRT051A  
 2ILRT052A  
 2ILRT053A  
 2ILRT054A  
 2ILRT055A

Raceway..... Walkdown Cable.....  
 Fire.....  
 Zone.....

- 2ILRT056A
- 2ILRT057A
- 2ILRT058A
- 2ILRT059A
- 2ILRT060A
- 2ILRT061A
- 2ILRT062A
- 2ILRT063A
- 2ILRT064A
- 2ILRT065A
- 2ILRT066A
- 2ILRT067A
- 2ILRT068A
- 2ILRT069A
- 2ILRT070A
- 2ILRT071A
- 2ILRT072A
- 2ILRT073A
- 2ILRT074A
- 2ILRT080A
- 2ILRT081A
- 2ILRT082A
- 2ILRT083A
- 2ILRT084A
- 2ILRT092A
- 2ILRT093A
- 2ILRT094A
- 2ILRT095A
- 2J08S
- 2J08W
- 2J100S
- 2K3101C
- 2K3111A
- 2K3134A
- 2K4199T
- 2NC189C
- 2Y2105S
- 2Y3101S
- 2Y4102S
- 2Y4103S
- PP2005S
- PP2005T
- PP6001A
- PP6003A
- PP6005A
- PP6007A

2WB04      615      2313MT  
           618      2314DS  
                   2314DT

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2314HS  
 2317MT  
 2318MT  
 2319BC  
 2319BD  
 23211CS  
 23211CT  
 2A24H  
 2B43AS  
 2B46AS  
 2J08S  
 2J08W  
 2J100S  
 2K3101C  
 2K3111A  
 2K3134A  
 2K4199T  
 2NC189C  
 2Y2105S  
 2Y3101S  
 2Y4102S  
 2Y4103S  
 PP2005S  
 PP2005T  
 PP6001A  
 PP6003A  
 PP6005A  
 PP6007A

2WJ02 615

228CB  
 2314MT  
 2315MT  
 23211FS  
 23211FT  
 2225CS  
 2325CT  
 2425CS  
 2425CT  
 2427FS  
 2427FT  
 2ILRT001A  
 2ILRT002A  
 2ILRT003A  
 2ILRT004A  
 2ILRT029A  
 2ILRT030A  
 2ILRT031A  
 2ILRT032A  
 2ILRT033A  
 2ILRT034A

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2ILRT035A  
 2ILRT036A  
 2ILRT037A  
 2ILRT038A  
 2ILRT039A  
 2ILRT040A  
 2ILRT041A  
 2ILRT042A  
 2ILRT043A  
 2ILRT044A  
 2ILRT096A  
 2ILRT097A  
 2ILRT098A  
 2J109S  
 2J109S  
 2J110S  
 2J111S  
 2J112S  
 2J114S  
 2J116S  
 2K4212S  
 2K4212T  
 2Y2101S  
 2Y2104S  
 2Y2106S  
 2Y4104S  
 LD0401S  
 LD0403S  
 PP1901S  
 PP1902S  
 PP1903S  
 PP1904S  
 PP1905S  
 ZC2321PS  
 ZC2321FT  
 ZC2325MS  
 ZC2325MT  
 ZC2NA016B

2WN01      608      2313MT  
           611      2314DS  
           615      2314DT  
                   2314HS  
                   2317MT  
                   2318MT  
                   2319BC  
                   2319BD  
                   23211CS  
                   23211CT  
                   2A24H

Raceway..... Walkdown Cable.....

Fire....

Zone....

2B43AS  
 2B46AS  
 2J09S  
 2J09W  
 2J100S  
 2K3101C  
 2K3111A  
 2K3134A  
 2K4199T  
 2K4212S  
 2NC189C  
 2Y2105S  
 2Y3101S  
 2Y4102S  
 2Y4103S  
 PP6007A  
 ZC2NA016B

R17 318

1Y0101A  
 1Y0201A  
 1Y0301A  
 1Y0401A  
 2A47H  
 2B04PTA  
 2B42CC  
 2B44BH  
 2C9000A  
 2C9001A  
 2C9002A  
 2K0012G  
 2K0021A  
 2K0021B  
 2K0023B  
 2K0035A  
 2K0037A  
 2K0038A  
 2K0039A  
 2X401F  
 2X401G  
 2X401H  
 2X401L  
 2Y0101A  
 2Y0201A  
 2Y0301A  
 2Y0401A  
 D1801A  
 D1807A  
 D1813A  
 D1814A  
 D1812A



Raceway . . . . . Walkdown Cable . . . . .  
Fire . . . . .  
Zone . . . . .

- FBS12B
- FBS12C
- FBS23A
- FBS23B
- FBS23C
- H0601A1
- H0601B1
- H32H
- K0070A
- K0079A
- K0089A
- K0403A
- K0403B
- K0409A
- K0551A
- KA007B
- SPR001
- TL008A
- TL009A
- TL010A
- ZD2A69C
- ZD2A89C
- ZD2A92B
- ZD2B25BB
- ZD2B25BC
- ZD2B26CB
- ZD2B26CE
- ZD2B32CB
- ZDG0401EE
- ZDG0401P
- ZF2A601E
- ZF2A601F
- ZF2A67C
- ZF2A67E
- ZFG0201D
- ZFG0201E
- ZFG0201N
- ZFG0201R
- ZFG0201S

19 records listed.

01 Description U2 WHITE & YELLOW CHANNEL CONFLICTS  
02 System code(s)  
03 Basic raceway designation(s)  
07 Basic cable designation(s)  
08 Raceway(s)  
10 Cable(s)  
11 Cable destination(s)  
12 Engineer item(s) for raceway(s)  
13 Engineer item(s) for cable(s)  
38 Safety parameter All inclusive  
39 Implemented parameter Design and installed raceway(s)  
41 Type analysis Matches any criteria  
43 User defined search WITH Cable "[2Y03]" "[2Y31]" "[2Y103]"  
" AND WITH Cable "[2Y04]" "[2Y41]" "[2Y104]"  
44 Sort parameter Alphabetical  
45 Print parameter Raceway, Walkdown Fire Zone, Cable  
46 Sub heading  
47 Sub footing

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

12T12      318      1A301C  
 1A401D  
 1A40B  
 1A52B  
 1A55C  
 1A55E  
 1A56G  
 1A56H  
 1A63C  
 1B03PTA  
 1K0012D  
 1K0012F  
 1K0013D  
 1K0013E  
 1K0123A  
 1TG01M  
 1TG01N  
 1TG02D  
 1X401H  
 1X401J  
 1Y0201A  
 1Y0203A  
 1Y0301A  
 1Y0611A  
 2A301C  
 2Y0101A  
 2Y0201A  
 2Y0301A  
 2Y0401A  
 D1603A  
 ZALAS01C  
 ZALAS7G  
 ZALAS8C  
 ZA1B15CB  
 ZA1B16BB  
 ZA1B16BC  
 ZA1B16CB  
 ZA1NA111A  
 ZA1NA112A  
 ZA1NA113A  
 ZR2Y0203A

2S617      615      2A24H  
 618      2B43AS  
 2B46AS  
 2J100S  
 2K3101C  
 2K3111A  
 2K3134A  
 2K4199T

Raceway..... Walkdown Cable.....  
 Fire.....  
 Zone.....

2K4212S  
 2Y2105S  
 2Y3101S  
 2Y4102S  
 2Y4103S

2VP01 608 23210CS  
 611 23210CT

2327JS  
 2327JT  
 2427CS  
 2427CT  
 2A29H  
 2B43AS  
 2B46AS  
 2J106S  
 2J113S  
 2J115S  
 2J117S  
 2J118S  
 2J119S  
 2J120S  
 2J130S  
 2J89B  
 2K5020C  
 2K5020D  
 2Y3103S  
 2Y3104S  
 2Y3105S  
 2Y4102S  
 2Y4103S  
 2Y4106S  
 2Y4110S  
 PF1801S  
 PF1802S  
 PF1803S  
 PF1804S  
 PF1805S  
 WD2J123A  
 WD2J124A  
 WD2J125A  
 ZD2421FS  
 ZD2421FT  
 ZD2422PS  
 ZD2422PT  
 ZD2422JS  
 ZD2422JT  
 ZD2424FS  
 ZD2424FT  
 ZD2424MS

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone.....

ZD2424MT  
 ZD2426FS  
 ZD2426PT  
 ZD2426MS  
 ZD2426MT  
 ZD2J135S  
 ZD2J135S\*  
 ZD2J165S  
 ZD2J326A  
 ZD2NB006S  
 ZD2NB006T  
 ZD2NB008S  
 ZD2NB008T  
 ZD2NB016B  
 ZD2NB016E

2VV01	608	23210CS
	611	23210CT
	615	2327JS
		2327JT
		2427CS
		2427CT
		2B43AS
		2B46AS
		2J106S
		2J113S
		2J115S
		2J117S
		2J118S
		2J119S
		2J120S
		2J130S
		2J89B
		2K4212T
		2K5020C
		2K5020D
		2Y3103S
		2Y3104S
		2Y3105S
		2Y4102S
		2Y4103S

2VV02	615	23210CS
		23210CT
		2327JS
		2327JT
		2427CS
		2427CT
		2B43AS
		2B46AS

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2J106S  
 2J107S  
 2J108S  
 2J113S  
 2J115S  
 2J117S  
 2J118S  
 2J119S  
 2J120S  
 2J130S  
 2J89B  
 2K4212T  
 2K5020C  
 2K5020D  
 2Y3103S  
 2Y3104S  
 2Y3105S  
 2Y4102S  
 2Y4103S  
 PP1801S  
 PP1802S  
 PP1803S  
 PP1804S  
 PP1805S

3VV03      615      2314BS  
           618      23210CS  
                   23210CT  
                   23211CS  
                   23211CT  
                   2327JS  
                   2327JT  
                   2427CS  
                   2427CT  
                   2B43AS  
                   2B46AS  
                   2IC001E  
                   2IC001F  
                   2IC002E  
                   2IC002F  
                   2IC003E  
                   2IC003F  
                   2IC004E  
                   2IC004F  
                   2J100E  
                   2J106S  
                   2J113S  
                   2J115S  
                   2J117S  
                   2J118S

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2J119S  
 2J120S  
 2J130S  
 2J89B  
 2J89C  
 2K5020C  
 2K5020D  
 2Y2105S  
 2Y3103S  
 2Y3104S  
 2Y3105S  
 2Y4102S  
 2Y4103S

2WB01 615

2313MT  
 2314BS  
 2314BT  
 2314DS  
 2314DT  
 2314HS  
 2317MT  
 2318MT  
 2319BC  
 2319BD  
 23211CS  
 23211CT  
 2A24H  
 2B43AS  
 2B46AS  
 2IC001C  
 2IC001D  
 2IC001K  
 2IC002C  
 2IC002D  
 2ILRT005A  
 2ILRT006A  
 2ILRT007A  
 2ILRT008A  
 2ILRT009A  
 2ILRT010A  
 2ILRT011A  
 2ILRT012A  
 2ILRT013A  
 2ILRT014A  
 2ILRT015A  
 2ILRT016A  
 2ILRT017A  
 2ILRT018A  
 2ILRT019A  
 2ILRT020A

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

2ILRT021A  
2ILRT022A  
2ILRT023A  
2ILRT024A  
2ILRT025A  
2ILRT026A  
2ILRT027A  
2ILRT028A  
2ILRT045A  
2ILRT046A  
2ILRT047A  
2ILRT048A  
2ILRT049A  
2ILRT050A  
2ILRT051A  
2ILRT052A  
2ILRT053A  
2ILRT054A  
2ILRT055A  
2ILRT056A  
2ILRT057A  
2ILRT058A  
2ILRT059A  
2ILRT060A  
2ILRT061A  
2ILRT062A  
2ILRT063A  
2ILRT064A  
2ILRT065A  
2ILRT066A  
2ILRT067A  
2ILRT068A  
2ILRT069A  
2ILRT070A  
2ILRT071A  
2ILRT072A  
2ILRT073A  
2ILRT074A  
2ILRT080A  
2ILRT081A  
2ILRT082A  
2ILRT083A  
2ILRT084A  
2ILRT092A  
2ILRT093A  
2ILRT094A  
2ILRT095A  
2J08S  
2J08W  
2J100S



Raceway..... Walkdown Cable.....

Fire....

Zone....

- 2K3101C
- 2K3111A
- 2K3134A
- 2K4199T
- 2NC189C
- 2Y2105S
- 2Y3101S
- 2Y4102S
- 2Y4103S
- FP5219A
- FP5220B
- FP5221B
- FP5222B
- FP5223B
- FP5224B
- FP5225B
- FP5226B
- FP5227B
- FP5228B
- FP5229B
- FP5230B
- FP5231B
- FP5232B
- FP5233B
- FP5234B
- FP5235B
- FP5236B
- FP5237B
- FP5238B
- FP5239B
- FP5240B
- FP5241B
- FP5242B
- FP5243B
- FP5244B
- FP5245B
- FP5246B
- FP5247B
- FP5248B
- FP5249B
- FP5250B
- FP5251B
- FP5252B
- FP5253B
- FP5254B
- FP5255B
- FP5256B
- FP5257B
- FP5258B
- FP5311AB

Raceway.... Walkdown Cable.....  
 Fire....  
 Zone....

FF5311BB  
 FFSJ11CB  
 FP5511AB  
 FP5511BB  
 FP5511CB  
 PP2005S  
 PP2005T  
 PP6001A  
 PP6003A  
 PP6005A  
 PP6007A

2WB02	615	2313MT 2314BS 2314BT 2314DS 2314DT 2314HS 2317MT 2318MT 2319BC 2319BD 23211CS 23211CT 2A24H 2B43AS 2B46AS 2ILRT005A 2ILRT006A 2ILRT007A 2ILRT008A 2ILRT009A 2ILRT010A 2ILRT011A 2ILRT012A 2ILRT013A 2ILRT014A 2ILRT015A 2ILRT016A 2ILRT017A 2ILRT018A 2ILRT019A 2ILRT020A 2ILRT021A 2ILRT022A 2ILRT023A 2ILRT024A 2ILRT025A 2ILRT026A 2ILRT027A
-------	-----	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Raceway.... Walkdown Cable.....  
Fire....  
Zone....

- 2ILRT048A
- 2ILRT048A
- 2ILRT046A
- 2ILRT047A
- 2ILRT048A
- 2ILRT049A
- 2ILRT050A
- 2ILRT051A
- 2ILRT052A
- 2ILRT053A
- 2ILRT054A
- 2ILRT055A
- 2ILRT056A
- 2ILRT057A
- 2ILRT058A
- 2ILRT059A
- 2ILRT060A
- 2ILRT061A
- 2ILRT062A
- 2ILRT063A
- 2ILRT064A
- 2ILRT065A
- 2ILRT066A
- 2ILRT067A
- 2ILRT068A
- 2ILRT069A
- 2ILRT070A
- 2ILRT071A
- 2ILRT072A
- 2ILRT073A
- 2ILRT074A
- 2ILRT080A
- 2ILRT081A
- 2ILRT082A
- 2ILRT083A
- 2ILRT084A
- 2ILRT092A
- 2ILRT093A
- 2ILRT094A
- 2ILRT095A
- 2J08S
- 2J08W
- 2J100S
- 2K3101C
- 2K3111A
- 2K3134A
- 2K4199T
- 2NC189C
- 2Y2105S
- 2Y3101S

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2Y4102S  
 2Y4103S  
 PP2005S  
 PP2005T  
 PP6001A  
 PP6003A  
 PP6005A  
 PP6007A

2W103 615

2313MT  
 2314BS  
 2314BT  
 2314DS  
 2314DT  
 2314HS  
 2317MT  
 2318MT  
 2319BC  
 2319BD  
 23211CS  
 23211CT  
 2A24H  
 2B43AS  
 2B46AS  
 2ILRT005A  
 2ILRT006A  
 2ILRT007A  
 2ILRT008A  
 2ILRT009A  
 2ILRT010A  
 2ILRT011A  
 2ILRT012A  
 2ILRT013A  
 2ILRT014A  
 2ILRT015A  
 2ILRT016A  
 2ILRT017A  
 2ILRT018A  
 2ILRT019A  
 2ILRT020A  
 2ILRT021A  
 2ILRT022A  
 2ILRT023A  
 2ILRT024A  
 2ILRT025A  
 2ILRT026A  
 2ILRT027A  
 2ILRT028A  
 2ILRT045A  
 2ILRT046A

Raceway.... Walkdown Cable.....  
Fire....  
Zone....

2FLRT047A  
2ILRT048A  
2ILRT049A  
2ILRT050A  
2ILRT051A  
2ILRT052A  
2ILRT053A  
2ILRT054A  
2ILRT055A  
2ILRT056A  
2ILRT057A  
2ILRT058A  
2ILRT059A  
2ILRT060A  
2ILRT061A  
2ILRT062A  
2ILRT063A  
2ILRT064A  
2ILRT065A  
2ILRT066A  
2ILRT067A  
2ILRT068A  
2ILRT069A  
2ILRT070A  
2ILRT071A  
2ILRT072A  
2ILRT073A  
2ILRT074A  
2ILRT080A  
2ILRT081A  
2ILRT082A  
2ILRT083A  
2ILRT084A  
2ILRT092A  
2ILRT093A  
2ILRT094A  
2ILRT095A  
2J08S  
2J08W  
2J10S  
2K3101C  
2K3111A  
2K3134A  
2K4199T  
2NC189C  
2Y2105S  
2Y3101S  
2Y4102S  
2Y4103S  
PP2005S

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

PP200ST  
 PP6001A  
 PP6003A  
 PP6005A  
 PP6007A

2WB04      615      2313MT  
           618      2314DS  
                   2314DT  
                   2314HS  
                   2317MT  
                   2318MT  
                   2319BC  
                   2319BD  
                   23211CS  
                   23211CT  
                   2A24H  
                   2B43AS  
                   2B46AS  
                   2J08S  
                   2J08W  
                   2J100S  
                   2K3101C  
                   2K3111A  
                   2K3134A  
                   2K4199T  
                   2NC189C  
                   2Y2105S  
                   2Y3101S  
                   2Y4102S  
                   2Y4103S  
                   PP200SS  
                   PP200ST  
                   PP6001A  
                   PP6003A  
                   PP6005A  
                   PP6007A

2WN01      608      2313MT  
           611      2314DS  
           615      2314DT  
                   2314HS  
                   2317MT  
                   2318MT  
                   2319BC  
                   2319BD  
                   23211CS  
                   23211CT  
                   2A24H  
                   2B43AS

Raceway..... Walkdown Cable.....  
 Fire....  
 Zone....

2B46AS  
 2J08S  
 2J08W  
 2J100S  
 2K3101C  
 2K3111A  
 2K3134A  
 2K4199T  
 2K4212S  
 2NC189C  
 2Y2105S  
 2Y3101S  
 2Y4102S  
 2Y4103S  
 PP6007A  
 ZC2NA016B

R37            318    1Y0101A  
 1Y0201A  
 1Y0301A  
 1Y0401A  
 2A47H  
 2B04PTA  
 2B42CC  
 2B44BH  
 2C9000A  
 2C9001A  
 2C9002A  
 2F^912G  
 2K0021A  
 2K0021B  
 2K0023B  
 2K0035A  
 2K0037A  
 2K0038A  
 2K0039A  
 2X401F  
 2X401G  
 2X401H  
 2X401L  
 2Y0101A  
 2Y0201A  
 2Y0301A  
 2Y0401A  
 D1801A  
 D1807A  
 D1813A  
 D1814A  
 FBS.2A  
 FBS12B

Raceway..... Walkdown Cable.....  
Fire....  
Zone....

FBS12C  
FBS23A  
FBS23B  
FBS23C  
H0601A1  
H0601B1  
H32H  
K0070A  
K0079A  
K0089A  
K0403A  
K0403B  
K0409A  
K0551A  
KA007B  
SPR001  
TL008A  
TL009A  
TL010A  
XD2A69C  
XD2A89C  
ZD2A92E  
ZD2B25BB  
ZD2B25BC  
ZD2B26CB  
ZD2B26CE  
ZD2B32CB  
ZDG0401EE  
ZDG0401P  
ZF2A601E  
ZF2A601F  
ZF2A57C  
ZF2A67E  
ZFG0201D  
ZFG0201E  
ZFG0201N  
ZFG0201R  
ZFG0201S

12 records listed.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 1

**Commitment Description:** Complete a detailed Unit 2 Containment Materiel Condition Assessment, addressing housekeeping, system walkdowns, materiel condition, and instrumentation. Extensive work inside Containment was conducted this outage due to the Steam Generator replacement project, so this warrants increased scrutiny during Containment closeout.

Should this assessment identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the assessment will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

**Criteria to Closeout This Item:**

1. Completion of the assessment defined in the "Commitment Description" section.
2. The Responsible Person has forwarded to the Restart Issues Coordinator:
  - A summary of the scope of the materiel condition assessment and when it was conducted (report using the NUTRK system - NUTRK U2R22 RESTART Action # 1).
  - A copy of documentation used to conduct the assessment.
  - A summary which addresses significant items/issues identified during conduct of the assessment and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 1).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the assessment are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

4. Completion of an independent verification.

**Independent Review Results:**

The draft independent review did not identify any discrepancies.

**Status:**

This commitment addresses the conditions of systems and components inside Unit 2 containment. This is being accomplished through 4 mechanisms:

- The thorough inspection for materiel condition and operational readiness as part of the proceduralized, normal startup sequence (using Checklist 20).
- Steam Generator Replacement Project walkdown and closeout of containment. This has been completed.
- Sargent and Lundy's detailed walkdown of the Instrument Air System. This has been completed.
- Use of the System Restoration Procedure (NP 2.3.4), which formalizes a systematic approach to restoring 28 systems following extensive work and outages. Most walkdowns were completed once earlier this year, and they are currently being done again due to the delay in the outage.

The following walkdowns per NP 2.3.4 have been completed (follow-up documentation not yet completed though):

IA	SW	VNCC	Y120AC
Containment	FH	RHR	Nuclear Instrumentation
CVCS	RC	SI	125DC
4.16KV	AF	DG	480VAC
ESF	EH	DA	Rod Drive
CC	MS	CS	

The following walkdowns per NP 2.3.4 are also being completed:

RP      TU      SG      Structures      Computers

Identified discrepancies are being resolved through the Condition Reporting and work order processes.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 2

**Commitment Description:** Walkdown all accessible Unit 2 and common Maintenance Rule systems for adequate visual materiel condition.

Should these walkdowns identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the walkdowns will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

**Criteria to Closeout This Item:**

1. Completion of the walkdowns defined in the "Commitment Description" section.
2. The Responsible Person has forwarded to the Restart Issues Coordinator:
  - A summary of the scope of the walkdowns and when they were conducted (report using the NUTRK system - NUTRK U2R22 RESTART Action # 2).
  - A copy of documentation used to conduct the walkdowns.
  - A summary which addresses significant items/issues identified during conduct of the walkdowns and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 2).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the walkdowns are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### Independent Review Results:

During walkdowns by the Independent Reviewer, some obvious adverse conditions were noticed (which the reviewer will follow up on to ensure that they are recognized within the corrective action systems at PBNP).

- The RHR Pump and Motor (2P-10B) have several maintenance tags hung locally which identify work activities (like an oil change) which do not appear to be on the prerequisite list for fuel load.
- One of the Component Cooling Pumps from Unit 2 has been scavenged for use in Unit 1. Replacement of the Unit 2 pump is being tracked by the PBNP staff. One additional adverse condition observed on the 'A' Steam Generator was where the Auxiliary Feedwater line connects to the Main Feedwater line. The Auxiliary Feedwater line appears to need more rigid support similar to the arrangement that exists on the 'B' Steam Generator. This condition is being pursued by the PBNP staff.

### Status:

72 systems have been identified which are in the scope of the Maintenance Rule, and this commitment is being accomplished through two means:

- 28 Maintenance Rule systems are being walked-down using the System Restoration Procedure (NP 2.3.4) outside containment. Most walkdowns were completed once earlier this year, and they are currently being done again due to the delay in the outage.
- The Maintenance Rule portions of the 44 remaining Maintenance Rule systems are being independently walked-down by Engineering and Operations for visual assessment of materiel condition.

Identified discrepancies are being resolved through the Condition Reporting and work order processes.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 3

**Commitment Description:** Walkdown all accessible Unit 2 and common systems for outstanding work order tags.

Should these walkdowns identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the walkdowns will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Independent Review Results:**

The independent review recommended that clear guidance be provided for these work order tag improvements, both in the form of the governing procedure (NP 8.1.1) and expectations being clearly specified to the workers.

The independent review concluded that there are no items associated with this commitment, other than those covered in the Condition Reports generated from this activity, which would impede Unit 2 startup.

### **Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 4

Commitment Description: Conduct as-built inspections of the electrical and I&C components on the Unit 2 CVCS and CCW systems (Work Orders 9607322, 9611140, 9606548, and 9611139). This will ensure that the associated drawings will be accurate.

Should these as-built inspections identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the as-built inspections will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown.

Independent Review Results:

No problems noted. The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 4

Commitment Description: Conduct as-built inspections of the electrical and I&C components on the Unit 2 CVCS and CCW systems (Work Orders 9607322, 9611140, 9606548, and 9611139). This will ensure that the associated drawings will be accurate.

Should these as-built inspections identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the as-built inspections will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown.

Independent Review Results:

No problems noted. The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

Status:

Verified closed. The associated documentation was provided to the NRC.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 5

**Commitment Description:** Complete Work Orders 9513222 through 9513225 to conduct inspections of Appendix R alternate power transfer switches.

The inspections will determine whether an E shaped retaining ring on the arcing contact assembly of some ASCO switches is missing. Condition Report 95-602 documents the missing E clip issue. Seismic qualification testing has shown that the switches pass the baseline functional testing even without the E shaped retaining rings installed.

Should these inspections identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the inspections will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

**Independent Review Results:**

No problems noted. The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

**Status:**

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 6

**Commitment Description:** Complete Work Order: 9604151 to perform foreign material exclusion inspections on the Unit 2 4160V safeguards bus 2A-06 and breakers. Debris found in switchgear prompted these inspections.

Should these inspections identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the inspections will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

**Completion Timing:** This should be completed prior to the Unit 2 core loading.

**Independent Review Results:**

There was no independent (QC) verification for the FME closeout inspection. This is not a requirement of NP 8.4.10, but may be warranted in cases of closeout inspections of critical equipment. QC had properly reviewed the Work Plan. PBNP should consider addressing in NP 8.4.10 as to conditions where verification is warranted for FME closeout inspections

The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

**Status:**

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 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.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Independent Review Results:**

The independent review identified the following from a review of 46 Technical Specification Tests, 16 Inservice Tests, and 12 Operations Refueling Tests:

- Technical Specification section is not identified in the procedure's PURPOSE section (4 instances).
- Incorrect Technical Specification section is identified in the procedure's PURPOSE section (4 instances).
- Additional Technical Specification sections should be added in the procedure's PURPOSE section (21 instances).

The independent review recommended:

- Revising the procedures to address the identified discrepancies (NUTRF, U2R22 RESTART Action # 93).
- Determining the root cause of these discrepancies.
- Maintaining the database which cross-references procedures to the Technical Specifications.

The independent review concluded there are no items associated with this commitment which would impede Unit 2 startup.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 8

**Commitment Description:** Review 20% of the Operations Technical Specification, Inservice Test, and Operations Refueling Test related surveillance procedures, with concentration on those involving major equipment. Upgrade as necessary to include appropriate initial conditions, return to service lineups, properly specified independent verification, reviewing acceptance criteria, and Technical Specification implementation.

The population considered for this commitment will be the Unit 2 and common Operations Technical Specification, Inservice Test, and Operations Refueling Test related surveillance procedures.

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.

The Restart Issues Coordinator will work with the Responsible Person to ensure the sampling methodology creates a 20% population which is both random and representative of the entire population.

This commitment is also a subset of Enforcement Conference Commitment Item # 17.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Independent Review Results:**

The independent review identified specific procedural enhancements from a review of 6 Technical Specification Tests, 16 Inservice Tests, and 12 Operations Refueling Tests. The independent review recommended:

- Addressing the identified procedural enhancements.
- Adopting a system review of procedures to better ensure consistency of procedures within each system.
- Providing guidance to procedure reviewers to maintain consistency.



The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

Revisions were made to one Operations Technical Specification, 9 Inservice Test, and 4 Operations Refueling Test related surveillance procedures.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 9

Commitment Description: Review the In Service Testing (IST) acceptance criteria for the remaining IST pumps (CCW, Charging, Boric Acid Transfer, CR Chill Water, CSR Chill Water, SFP Cooling, and FO Transfer pumps) to ensure that the IST acceptance criteria meets the design basis/accident analysis requirements. Make any changes necessary as a result of this review.

The work has already been completed for the SI, RHR, AFW, SW, and Containment Spray pumps (the original group), so they are not included in this commitment.

The scope of this review will be ensuring that the IST acceptance criteria meets the design basis/accident analysis requirements. 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 Enforcement Conference Commitment Item # 39.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### Independent Review Results:

The CCW operability determination states that test flow for IT-12 and IT-13 is 3600 gpm. IT-13 sets mean average flow at 3500 gpm. The operability determination is still valid on this point, since IT-13 flow is greater than the required design basis flow of 3457 gpm (this value includes instrument uncertainty). It is noted, however, that the recommendation of the operability determination is to set flow at greater than the design basis flow. IT-13 is therefore in compliance with this recommendation. IT-12 is currently being revised and should be similarly reviewed when issued. Ultimately, the procedure flow value should be revised to match the operability recommendations (setting flow at greater than the design basis flow, with instrument uncertainty included), instead of the current procedural flow setting of 3500 gpm.

The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 10

**Commitment Description:** Review the In Service Testing acceptance criteria for all IST valves to ensure that the IST acceptance criteria meets the design basis/accident analysis requirements. Complete necessary operability evaluations, revise procedures, and resolve Unit 2 equipment discrepancies.

The scope of this review will be examining the associated 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 Enforcement Conference Commitment Item # 40.

**Completion Timing:** This will be completed prior to January 17, 1997. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Independent Review Results:**

The independent review concurred with the recommendation of Point Beach Memo 97-0036 that although the scope of this commitment has been satisfied, further (Phase 3) evaluation should be completed in order to prevent further questions if a valve would fall outside of its preliminary design time. It would be prudent and proactive to continue such an effort.

The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

### **Status:**

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 11

**Commitment Description:** Complete the following regarding installed instrumentation used in the IST program:

- Identify the Unit 2 installed instruments used in the IST program.
- Review the performance of the identified instruments over the last 3 years.
- Review the suitability of the instrumentation for use in the IST program.
- Review all IST pump hydraulic data over the past year for adverse trends.

As necessary, make changes as a result of these actions.

Should these reviews identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the reviews will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

This commitment is also Enforcement Conference Commitment Item # 43.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

**Independent Review Results:**

The independent review recommended that a streamlined database be established to verify that current IST instrumentation is appropriate and possesses sufficient reliability in fulfilling its design function. It should be evaluated on a periodic basis.

The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

**Status:**

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 12

**Commitment Description:** Review 20% of the surveillance procedures associated with safety significant non-pump and valve components (such as heat exchangers and fans) to ensure that the surveillance acceptance criteria satisfy the requirements of the plant design basis/accident analysis. Make changes as necessary as a result of this review.

The population considered for this commitment will be the Unit 2 and common surveillance procedures associated with safety significant non-pump and valve components (such as heat exchangers and fans).

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.

The Restart Issues Coordinator will work with the Responsible Person to ensure the sampling methodology creates a 20% population which is both random and representative of the entire population.

This commitment is also Enforcement Conference Commitment Item # 47.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Independent Review Results:**

As a program enhancement, it was recommended that the PBNP staff evaluate the need to periodically verify that the Residual Heat Removal Heat Exchangers (2HX-11A/B) can perform at the design heat duty of 24.15 E6 BTU/HR (FSAR Table 6.2-7) (NUTRK U2R22 RESTART Action # 94).

The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.



**Status:**

Due to discrepancies identified during the initial 20% review, the scope of this review was expanded. All surveillance procedures (Unit 1, Unit 2, and common) associated with safety significant non-pump and valve components (such as heat exchangers and fans) were reviewed to ensure that the surveillance acceptance criteria satisfy the requirements of the plant design basis/accident analysis.

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 13

**Commitment Description:** Review other operating procedures that contain maintenance activities and revise as necessary to ensure PMT and QC are properly addressed by those procedures. This will be done for Unit 2 operating procedures.

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 Enforcement Conference Commitment Item # 51.

**Completion Timing:** This will be completed prior to January 31, 1997. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Independent Review Results:**

As a result of this independent review, errors, omissions, and sometimes inconsistent application of PBNP criteria were discovered.

It is this reviewer's judgment that most of the procedure changes made to resolve this commitment describe actions within the skill of the operator. These actions can be performed without the need for specific procedure steps and without adversely affecting nuclear safety or the safe operation of the plant. The following actions should be completed prior to the restart of Unit 2:

- Improve the operator guidance on MOV/AOV packing adjustments and manual closure to stop seat leakage. The improved guidance should provide sufficient limitations to avoid manipulation of the valve to the extent that it makes it inoperable (NUTRK U2R22 RESTART Action #95).
- Resolve the use of a QC witness as an apparent replacement for qualified individuals to perform flange and torquing work requirements. This can be accomplished by using qualified people to perform the initial work item and use QC as a second verification only where necessary (NUTRK U2R22 RESTART Action #96).

Other actions relative to this commitment which are considered long term enhancement issues that should not impede restart are the following (NUTRK U2R22 RESTART Action #97):

- Improve the Auxiliary Operator job functions description in OM-2.6, to more completely describe the expectations for maintenance activities and the need for and relative safety significance of any required Post Maintenance Testing.
- Train the Auxiliary Operators on these expectations and their relative safety significance.
- Address the expectations in the implementing procedures in a manner that clearly improves the safe performance of the procedure. This effort should balance the need for specific procedure wording with the skills of the operator and the relative safety significance of the evolution.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 14

Commitment Description: Review equipment return to service testing requirements prior to the following U2R22 mode change readiness reviews to ensure the required equipment is operable prior to changing the following modes: core reload, leaving cold shutdown, and the approach to criticality.

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 Enforcement Conference Commitment Item # 53.

Completion Timing: This will be completed approximately one week prior to core loading, prior to leaving cold shutdown, and prior to the approach to criticality.

### Criteria to Closeout This Item:

1. Completion of the three reviews defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Enforcement Conference Commitments Coordinator which addresses (report using the NUTRK system):
  - When the reviews occurred.
  - Copies of documents used to perform the reviews.
  - Results of the reviews.
  - Significant items/issues identified during conduct of the review and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.
3. The Restart Issues Coordinator or the Enforcement Conference Commitments Coordinator have verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Enforcement Conference Commitments Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the reviews are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

4. Completion of an independent verification.

**Independent Review Results:**

Drafted, but no recommendations yet.

**Status:**

The readiness reviews will occur shortly before each of the three major mode changes (core loading, leaving cold shutdown, and the approach to criticality). These reviews are scheduled activities in the Major Item Work List and are "predecessors" to each plant condition.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 15

Commitment Description: 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.

Approximately 80% of the work orders at Point Beach Nuclear Plant are maintenance work orders, and the original commitment focused on maintenance work orders alone. The scope of this review has been expanded to address the non-maintenance work orders also.

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.

The Restart Issues Coordinator will work with the Responsible Person to ensure the sampling methodology creates a 20% population which is both random and representative of the entire population.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### Independent Review Results:

WO 9501025 - This work order was written to investigate the excessive loading time of the K-02B Air Compressor. A "pea size" defect on the cylinder wall was identified in the WO package with a note that it could not be removed. The impact of this defect on the operation of the air compressor with respect to excessive loading time was not addressed in the WO package (NUTRK U2R22 RESTART Action # 91).

WO 9506905 - This work order reset the 62/K2A (K2B) time delay relay from 7 seconds to 10 seconds. There is no justification or 50.59 review for the safety significance of this change that is with the WO or with the DCN that changed DWG West. 499B466 SH. 538. Additionally, the relay as found setting was actually 12.1 seconds (not 7 seconds)

and was left at 10.2 seconds. The impact of this as found/as left information was not documented for its impact on compressor operation. DCN 95-1021 for the drawing change references the wrong work order number as justification for the document change (NUTRK U2R22 RESTART Action # 91).

WO 9506768 - This work order repaired tubing connections to DPIS-04007 in the Auxiliary Feedwater System. The work order specified a 2000 psig leak test of the new connections, but a pen and ink changed this leak test pressure to 1400 psig. While this may be the appropriate pressure to perform this leak check, the change is not justified or reviewed for its safety impact within the work order (NUTRK U2R22 RESTART Action # 92).

The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 16

**Commitment Description:** Complete all Unit 2 Maintenance Rule related work order post-PMT (i.e., post-work, pre-PMT) reviews prior to the approach to criticality.

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.

**Completion Timing:** This should be completed prior to the Unit 2 approach to criticality.

### **Independent Review Results:**

No discrepancies noted. The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

### **Status:**

These reviews occur between the time maintenance is reported complete and when the PMT is actually accomplished (so as to ensure the proper PMT is done for the work performed).

Originally, this commitment was anticipated to remain open through the outage. However, this has been closed based on:

- The results of Restart Commitment #15, which reviewed PMT adequacy.
- The results of this review, where the Responsible Person identified that about 2% of the PMT's required changing, almost all due to changes in the scope of work performed since the PMT had originally been conceived.
- These post-work, pre-PMT reviews are an established process.

Verified closed. The associated documentation was provided to the NRC.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 17

**Commitment Description:** Review 50.59 screenings conducted in 1996. Upgrade those determined to require a 50.59 evaluation. This will be done for all 50.59 screenings, not just those involving Unit 2.

During November 1996, QA auditors reviewed the 50.59 and 72.48 safety evaluation processes per QA audit A-P-96-17. The auditors reviewed two hundred 50.59 screenings and identified six which required a full 50.59 evaluation and another six which were questionable. None of these were found to involve an Unreviewed Safety Question.

The scope of this review will be examining the identified documents for accuracy and compliance with requirements. 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.

**Completion Timing:** This should be completed prior to the Unit 2 approach to criticality. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Criteria to Closeout This Item:**

1. Completion of the review defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Restart Issues Coordinator which addresses (report using the NUTRK system - NUTRK U2R22 RESTART Action # 17):
  - When the review occurred.
  - How many screenings were reviewed.
  - Documents initiated or changed as a result of this review (this includes 50.59 evaluations). The identification number for each of these must be included in this summary, and a copy of those documents sent to the Restart Issues Coordinator for inclusion in the Restart Issues File.
  - Significant items/issues identified during conduct of the review and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.

3. The Restart Issues Coordinator has verified that the:

- Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
- Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

4. Completion of an independent verification.

**Independent Review Results:**

A review of 50.59 screenings yielded instances where the basis for determining that a 10 CFR 50.59 was not required needed more justification, although the screenings were appropriate. The independent review made the following recommendations:

- The recommendations from QA Audit Report A-P-96-17 should be implemented in a timely manner.
- Current guidance as to whether to use a screening or a 10 CFR 50.59/10 CFR 72.48 safety evaluation is rather broad and subject to interpretation. The safety evaluation applicability threshold should be better specified and training conducted on same.
- Specific examples applicable to everyday 10 CFR 50.59/10 CFR 72.48 preparation should be made available, either in NPBU Procedure 10.3.1 and/or in training.
- Technical training with emphasis on style and content should be considered, both for initial qualification and continuing training.
- When the 10 CFR 50.59 applicability process for a particular item is inconclusive, perform a full 10 CFR 50.59 safety evaluation.
- Require that all screenings be either authored or reviewed a members of the multi-disciplinary review team.

**Status:**

The initial review identified 22 screenings which should be upgraded to a full 50.59 evaluation (one was later determined to not require a 50.59 evaluation). Four screenings were to be re-written to add details.

The following four screenings have been rewritten due to having a lack of detail:

- QCR 96-092, Action #3: Review 50.59 screening for SPEED 96-047, RV Head O-Ring retaining screw, 7/25/96. Update screening as necessary to determine if a full evaluation is required.
- QCR 96-092, Action #4: Review 50.59 screening for WO 933149, replace SW-2950, 10/2/96. Update screening as necessary to determine if a full evaluation is required.

- QCR 96-092, Action #5: Review 50.59 screening for RF-60.1 (65.1), Revision 0, Unlatching Tool Calibration, 10/8/96. Update screening as necessary to determine if a full evaluation is required.
- QCR 96-092, Action #6: Review 50.59 screening for RP-4A, Revision 12, 3/15/96. Update screening as necessary to determine if a full evaluation is required.

The following screenings have been upgraded to full 50.59 evaluations:

- QCR 96-092, Action #7: Perform a full 50.59 evaluation for the screening on MR-96-051, supply breaker for 1/2AF-4002 control, 8/15/96.
- QCR 96-092, Action #8: Perform a full 50.59 evaluation for the screening on Replacement of Oil Sightglass on G-04, 9/25/96.
- QCR 96-092, Action #9: Perform a full 50.59 evaluation for the screening on WO 9411618, Nitrogen Piping and Regulator Replacement, 11/6/95.
- QCR 96-092, Action #10: Perform a full 50.59 evaluation for the screening on Blowdown Evaporator Piping Replacement, 5/4/96.
- QCR 96-092, Action #15: Perform a full 50.59 evaluation for the screening on MR-96-005, Oil Level Sightglass for P-15A/B, 3/11/96. **COMPLETING THIS IS A CORE RELOAD PREREQUISITE.**
- QCR 96-092, Action #16: Perform a full 50.59 evaluation for the screening on AM 3.3, Primary to Secondary Leakage Monitoring, 2/8/96.
- QCR 96-092, Action #19: Perform a full 50.59 evaluation for the screening on MR-218/219, Removal of Rod Insertion Alarms, 7/17/96.
- QCR 96-092, Action #20: Perform a full 50.59 evaluation for the screening on FSAR Deletion of Large Pipe Missiles, 3/24/95.
- QCR 96-092, Action #21: Perform a full 50.59 evaluation for the screening on MR-90-047\*A, BA + RMW Flow Transmitter Replacement, 2/22/96. **COMPLETING THIS IS A CORE RELOAD PREREQUISITE.**
- QCR 96-092, Action #22: Perform a full 50.59 evaluation for the screening on Replacing ILC-473F, 7/8/96.
- QCR 96-092, Action #23: Perform a full 50.59 evaluation for the screening on AOP-6F, Revision 0, 12/25/95. **COMPLETING THIS IS A CORE RELOAD PREREQUISITE.**

- QCR 96-092, Action #24: Perform a full 50.59 evaluation for the screening on MR-89-133\*C, Additional 120V Containment Lighting, 4/2/96. **COMPLETING THIS IS A CORE RELOAD PREREQUISITE.**
- QCR 96-092, Action #26: Perform a full 50.59 evaluation for the screening on RP-1A/RMP-9002-8, 10/12/96.
- QCR 96-092, Action #28: Readdress screening associated with Safety Injection System Checklist Revision changing SI-826A position (screening date 4/17/96). Perform full 50.59 evaluation.

The following screening was originally felt to require a full 50.59 evaluation, but that decision was later reversed:

- QCR 96-092, Action #14: Perform a full 50.59 evaluation for the screening on Setpoint Change for 125 VDC Breakers, 7/29/96.

The following screenings are still being upgraded to full 50.59 evaluations:

- QCR 96-092, Action #11: Perform a full 50.59 evaluation for the screening on MR-96-052, AFW MOV Fuse Installation, 8/15/96.
- QCR 96-092, Action #12: Perform a full 50.59 evaluation for the screening on SW Control Board Wire Separation, 11/7/96.
- QCR 96-092, Action #13: Perform a full 50.59 evaluation for the screening on Temporary Change to IT-08A, Revision 14, 11/6/96.
- QCR 96-092, Action #17: Perform a full 50.59 evaluation for the screening on OP-3C, Revision 64, 3/9/96.
- QCR 96-092, Action #18: Perform a full 50.59 evaluation for the screening on OP-1A, Revision 56, 3/9/96.
- QCR 96-092, Action #25: Perform a full 50.59 evaluation for the screening on OP-6A, Revision 17, 12/22/95.
- QCR 96-092, Action #27: Perform a full 72.48 evaluation for the screening on AOP-8H, Revision 0, 10/7/96.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 18

**Commitment Description:** Review outstanding JCOs. Perform operability determinations and 50.59 evaluations needed to address the issues. This applies to all outstanding JCOs, not just the ones associated with Unit 2.

The scope of this review will be examining the outstanding JCOs for accuracy and compliance with requirements. 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.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown.

**Criteria to Closeout This Item:**

1. Completion of the review defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Restart Issues Coordinator which addresses (report using the NUTRK system - NUTRK U2R22 RESTART Action # 18):
  - When the review occurred.
  - Which specific JCOs were reviewed.
  - Documents initiated or changed as a result of this review (including operability determinations and 50.59 evaluations). The identification number for each of these must be included in this summary, and a copy of those documents sent to the Restart Issues Coordinator for inclusion in the Restart Issues File.
  - Significant items/issues identified during conduct of the review and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

A dispositioned closed JCO ( JCO 96-01) was discovered to have unresolved questions in the documentation that closed JCO 96-01. SER 97-003, dated 1/6/97, replaced and cancelled JCO 96-01 with the conclusion that the "Condition of SW Boiling / Voiding in Containment Fan Coolers During Transients" is not an Unreviewed Safety Question because the NRC accepted the "interim operability criterion" described to them in VPMPD (letter) 96-065. This WEPCO correspondence to the NRC titled "Detailed Operability Evaluation of the Service Water System with respect to Post-Accident Boiling in Containment Fan Coolers Point Beach Nuclear Plant, Unit 1 and 2", concluded that the water hammer loads exceeded code allowable values, but that piping code operability was validated by code allowable criteria for interim operability. Letter VPMPD 96-065, dated 9/9/96, also concluded that the incremental increase in risk, as determined by the PBNP PSA, was not significant for a period of 14 months. VPMPD 96-065 indicated that corrective actions, based on this interim 14 months of acceptable risks, would be planned for the scheduled refueling outages in 1997. The questions left unresolved by the above actions and correspondences center around the existence of a condition that is an interim operability determination, and how the time clock associated with the interim determination is understood and tracked to resolution by the licensee. In the context of Restart Commitment No. 18, the answers to these questions would supposedly be found in the documentation of a Justification For Continued Operation. Since the technical issue with the fan cooler water hammer is now labeled as an " Interim Safety Evaluation Report", these questions appear unresolved.

### **Status:**

This is in progress.

JCO #94-03 is outstanding, which involves DC Molded Case Circuit Breakers. A 50.59 is being written to address this. There was one operability issue identified with wire separation which could impact molded case circuit breakers. That operability issue is being dispositioned through the CR and operability determination processes.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 19

**Commitment Description:** Conduct a review of 50.59 evaluations from this outage. Ensure all conditions of the evaluations have been completed. This review will address the 50.59 evaluations for Unit 2.

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.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Criteria to Closeout This Item:**

1. Completion of the review defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Restart Issues Coordinator which addresses (report using the NUTRK system - NUTRK U2R22 RESTART Action # 19):
  - When the review occurred.
  - A listing of the 50.59 evaluations which were reviewed.
  - Documents initiated or changed as a result of this review. The identification number for each of these must be included in this summary, and a copy of those documents sent to the Restart Issues Coordinator for inclusion in the Restart Issues File.
  - Results of the review.
  - Significant items/issues identified during conduct of the review and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.



3. The Restart Issues Coordinator has verified that the:

- Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
- Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

4. Completion of an independent verification.

**Independent Review Results:**

No discrepancies noted to date.

**Status:**

This review is in progress. There are two aspects of this:

- All 50.59 evaluations approved since January 1, 1996 have been reviewed to identify the outage related population.
- Emergent 50.59 evaluations are being reviewed to identify additional commitments, which will be tracked to completion through the outage.

As this is a continuous process, the scheduled completion date for this commitment will coincide with the approach to criticality. Attached is a spreadsheet of the commitments identified from this review.

50:59 Number	Reviewed	Title of 50:59 (For those Associated with Commitments)	Commitments Made	CODE	STATUS
97-064	RJP	AM 3.3 Change in prim to sec leak monitoring frequency(1/2RE-109)	Proceduralize commitment from VPNDP 87-510 Prior to setting containment, revise the following documents	?	Checking
97-013	SH	CL-1B, "Containment Integrity - Unit 2" CL-9D, "Demineralized Water System" and Change to FSAR Figure 5.2-12a	1. CL-1B "Containment Integrity, Unit 2" 2. CL-9D, "DI Water System" Also change "FSAR Dwg 5.2-12a"	CONT	Changes Made CL-1B 2/11/97 OA 2530 CL-9D 3/3/97??
96-098	SEG	MR 93-025*A, C-01 and 2C-03, AFW pump P-38A MCB Train Separation Rewire	1. Work Plan will be completed during U2R22, before Unit 2 is taken critical 2. Circuit testing will be performed	CRIT	Complete P38A = OA 3909 P38B = OA 3931 PMT = (T-10) OA 2805A
96-106	SEG	MR 93-025A, C-01, C-02, Rerouted MCB wiring to provide train separation for CARCS Fans 2W-1A1 and 2W-1D1.	1. The work activities will be performed with the associated Unit 2 in cold shutdown	CSD	Complete W1A1=OA 3913 W1D1=OA 3923 Awaiting TS-34 for PMT
97-012	RJP	Diesel Cooler Outlet Service Water Throttle valves	1. Review test gages meter 2. Review fig 2 OI-70 OI-70 and PBF 2067a&b, TS82/81 3. Brief isolation of SW to IA when used 4. Perform gage future 5. Ops WO's set valves, limit DP, Diesels/SW operable, validate fig 6. DCS 1.7- 3 SW prmps needed	CSD	1 MR96-054*A - 5/12/97 plan start 2 3 4 5 WO 9611750 & 9611751 6 Committed to DCS by TSCR 192 Complete CS-480 = OA 3193 CS-481 = OA 3193 PMT = ICP-5.11 OA 3562A
97-018	SH	Main Feedwater Bypass Control Valves (2CS-480,481) Trim Replacement	1. Installed and tested in Cold Shutdown (Stroke testing, stroke timing, leakage & functional testing) 2. Final acceptance testing during unit startup	CSD	Complete CS-480 = OA 3193 CS-481 = OA 3193 PMT = ICP-5.11 OA 3562A
97-019	SH	Component Cooling Pump Replacement	1. During the switchover, separate train powered pumps will be maintained 2. Precautions will be taken to ensure that the work on the out of service pumps does not effect the running pumps	CSD	Complete OA 2022H PMT = IT-12 OA 1751C
97-024	SH	Verification of Containment Pressure ESF Test Switches Continuity before leaving CSD (ICP 10.1 Series)	1. Modify procedures to require verifying continuity prior to leaving CSD	CSD	Procedures issued
97-025	SH	Resupply 2Y11, 2Y21, 2Y31 and 2Y41 from 2Y113 and 2Y114 (MR 97-005*B)	1. Perform SQUG walkdowns on newly installed conduits 2. Modify during CSD with SI blocked 3. Work each cabinet sequentially 4. DTO Supply breakers on 2Y01-2Y04 prior to re-powering 2Y11-2Y41	CSD	Installation complete OA's 1194, 1195 Awaiting PMT = OA 1315
97-036	RJP	G0304 Bearing Insulation	1. NWP to control installation while EDG is OOS per Tech. Spec.	CSD	Work Complete OA1169 and TS-83/84
97-054	RJP	G0102 Overcurrent protection	1. Completed prior to heatup 2. Diesel OOS per Tech. specs. 3. Current Mod. design resulted in USQ - design will be changed to address this	CSD	Revised design in progress
97-057	RJP	Unit 2 Loop A channel head duct supports	U2 must be in cold shutdown for MR 97-022	CSD	MR 97-022, CR 97-0611 OA 1313 6/15/97 plan
97-058	RJP	Unit 2 Channel Head blower Intake Duct Modification	U2 must be in cold shutdown	CSD	CR 97-0299 0609 0610 and MR 97-016 OA 1314 6/15/97 plan
97-060	RJP	Dedicated operator for P-38A - USQ	1. Use Ops notebook 2/11/97 for AF-4012 control 2. Fix G-0102 governor to eliminate frequency problem permanently	CSD	CR 97-708 MR 96-071
97-063	RJP	Replace 2P-116 Boric Acid Pump	1. Replace 2P-116 before 1P-116	CSD	OA 3540 planned for 5/16/97 MR 97-002
?	RJP	Overpressurization issue on RHR 700 to 701 (50:59 coming)	U2 must be defueled John Oswald working on this	DEF	

5/15/97

50.59 Number	Reviewed	Title of 50.59 (For those Associated with Commitments)	Commitments Made	CODE	STATUS
96-062	SH	Removal of Reactor Coolant Valves 2RC-503, 541, 543, 558, 598, 599	1. Rx Vessel defueled for installation 2. RCS Vented to atmosphere 3. VT, PT, RT, Pressure & Leakage tests performed following installation	DEF	Complete RC-503, 541 = OA A3310 RC-558, 598, 599 = OA B3310 RC-543 = OA A2315 Awaiting IT-235 (Outage Activity 26330) & TS 15.4.3 for PMT
96-100	SEG	MR 93-025A, Revise MCB wiring to provide control circuit separation for 25W-42907	1. The work activities will be performed with the associated Unit 2 shutdown with the core defueled while the valve is not required.	DEF	Complete - OA 3919
96-104	SEG	MR 93-025A, C-01 & C-03, Reroute MCB wiring to provide train separation for RH-R pumps 2P-10A and 2P-10B	1. Wires will be replaced and rerouted during U2R22. Work will be completed with the core defueled.	DEF	Complete - 2P10A = OA 3907 2P10B = OA 3921
96-115-01	SEG	Change to RP-8, Part 4 - Placing the MSB Transfer Cask (MTC) into the spent fuel pool	1. Changes in this evaluation related to returning the MSB/MTC to the SFP for an extended period only apply when the U2 core is offloaded during the SGR Outage phase.	DEF	PMT = IT-4A OA 2039 Updated on 10/11/96
96-116	SEG	RP-1A Preparation for Refueling and RP-1B Recovery from Refueling	1. RP-1A/1B modified to use during U2R22, refueling outage during phase.	DEF	Updated on 1/31/97, 3/20/97
96-122	SEG	Revise MCB-C-01 wiring for train separation for 2S1-650A&B, 2S1-851A&B	1. The work is being performed during U2R22, when the reactor vessel is defueled and RH-R operability is not required.	DEF	Completed 2S1-850A&B - OA 3915 Completed 2S1-851A&B - OA 3817
96-130	SEG	Plant Beach Nuclear Plant Unit 2 Cycle 23 Refund analysis.	1. Safety evaluation for Unit 2 Cycle 23 core reload. 2. Test with cavity flooded. 3. Test defueled & depressurized. 4. No fuel movement during test. 5. Both trains tested. 6. Pumps closely monitored - ensure not damaged (by Mfr Rep) 7. IT (4A) done as PMT 8. Cask Tracked if buoy damaged (until fixed) 9. Test U2R22 Defueled 10. Test one train at a time (other kept operable) 11. Ensure P-20A&B stopping during test 12. Enter appropriate LCOs 13. No other ECC/ESF work/testing 14. No unassisted Non-ESF work/testing 15. SFP cooling returned to U1 power 16. Make the following changes to ORT 3, row 2B: 17. For Train A portion of test enter an LCO for 1P15A 18. Ensure all A Train LCOs are cleared prior to conducting the B Train test 19. Reset Containment Vent Isolation Cks during Train A&B tests 20. Neither unit requires RH-R operation for the duration of this repair. 21. CCW RH 'D' is out of service 22. SW return header is maintained at a vacuum	DEF	PMT = IT-530 OA 2381 Complete - No OA #
96-006	SH	PBEP-042 RH-R Pump Maximum Flow Test		DEF	Complete - OA 1873
97-009	SH	ORT-3 Revision 2B		DEF	Test Complete Train A = 2/4/97 OA 2450, 2450A Train B = 2/7/97 OA 2450B
97-009-01	SH	Temporary Change to ORT-3 Revision 2B		DEF	Test Complete Train A = 2/4/97 OA 2450, 2450A Train B = 2/7/97 OA 2450B
97-015	SH	Repair of SW-00307 Valve		DEF	Accepted - OA 8624, 8617B PMT = PBTP-52 OA 898377777777

50:59 Number	Reviewed	Title of 50:59 (For those Associated with Commitments)	Commitments Made	CODE	STATUS
97-023	SH	Repair/Replacement of 6" SW elbows on West SW Header (MR 96-053)	<ol style="list-style-type: none"> <li>1. Installed w/unit defueled</li> <li>2. Seismically qualify interim &amp; final configurations</li> <li>3. Develop contingency plans for SW leakage &amp; loss of SFP cooling</li> <li>4. All welds NDE'd</li> <li>5. FME controls (inspect plug, flush shavings)</li> <li>6. SW-2089 will be closed &lt;7 days</li> </ol>	DEF	Installation pending - OA's 8817, 8817A 6507, 8855 PMT = 6406B All work complete 4/30/97
97-023-1	SH	Repair/Replacement of 6" SW elbows on West SW Header (MR 96-053)	<ol style="list-style-type: none"> <li>1. Installed w/unit defueled</li> <li>2. Seismically qualify interim &amp; final configurations</li> <li>3. Develop contingency plans for SW leakage &amp; loss of SFP cooling</li> <li>4. All welds NDE'd</li> <li>5. FME controls (inspect plug, flush shavings)</li> <li>6. SW-2089 will be closed &lt;7 days</li> </ol>	DEF	Installation pending - OA's 8817, 8817A 6507, 8855 Awaiting PMT = OA 6406B All work complete 4/30/97
97-032	SH	MR 96-069*A, "Replace Breakers in 1Y-00", MR 96-069*B, "Replace Breakers in 1Y-05"	<ol style="list-style-type: none"> <li>1. Replace w/ Unit 2 defueled &amp; Unit 1 in CSD or HSD</li> <li>2. Replace breakers sequentially</li> <li>3. Ops to review list of affected equipment prior to each breaker changeout</li> </ol>	DEF	Installation Complete - OA 8888 PMT =
97-033	SH	Test the ability to cycle the Unit 1 to Unit 2 CCW cross connect valves (PBTP-058)	<ol style="list-style-type: none"> <li>1. Installed w/unit defueled</li> <li>2. No loads requiring Unit 2 CCW</li> <li>3. Unit 1 shutdown, T&gt;350 degrees</li> <li>4. Not on Unit 1 RHR</li> <li>5. RHR system aligned for injection</li> </ol>	DEF	Procedure issued 2/28/97 Test completed 3/4/97 OA 1176
96-072	SH	MR 96-022, Re-supply 1B04 & 2B03 DC Control Power	<ol style="list-style-type: none"> <li>1. Complete during Refueling outage</li> <li>2. Battery Capacity Test System used for PMT</li> </ol>	OUT	Accepted - OA 8912, 8912A PMT is complete
96-066	SEG	IWP 96-022-2, IWP 96-022-3, Re-supply 1B04 & 2B03 DC Control Power	<ol style="list-style-type: none"> <li>1. Complete during Refueling outage</li> <li>2. Battery Capacity Test System used for PMT</li> </ol>	OUT	IWP 96-022-2 Accepted - OA 8912A PMT is complete IWP 96-022-3 Will work during U1R24
96-087	SEG	MR 94-066*A install soft face disk into 2SI-834D CIV check valve	<ol style="list-style-type: none"> <li>1. Complete during refueling outage</li> <li>2. Test in accordance with relief valve program</li> </ol>	OUT	Accepted - OA 8791
96-112	SEG	MR 96-063, Replacement of U2 Generator output breaker 2F52-142	<ol style="list-style-type: none"> <li>1. The installation will take place with Unit 2 in refueling shutdown &amp; 345 kV bus section 4 deenergized and grounded.</li> </ol>	OUT	Installation Complete - OA 7602 Initial Testing Complete - OA 7603 Rerest must be after bkr closed onto Grid
96-121	SEG	Install, Delete & Modify Supports for FW, MS and SI piping	<ol style="list-style-type: none"> <li>1. These modifications will be installed during U2R22</li> </ol>	OUT	Accepted - OA 8798, 8276, 8022, 8467, 8796
96-127	SEG	2ICP-04 002-1 Reactor Coolant Flow Transmitters, Outage Calibration	<ol style="list-style-type: none"> <li>1. Recalibrate Unit 2 Reactor Coolant Flow transmitters to account for replacement steam generators.</li> </ol>	OUT	Complete - OA 3437
96-134	SEG	Install, Delete & Modify Supports for AFW, RHR, CVCS and CCW piping	<ol style="list-style-type: none"> <li>1. These modifications will be installed during U2R22</li> </ol>	OUT	Accepted - OA 8525
97-005	SH	MR 96-065B "U1/U2 RWST Recirc Line Siesmic Upgrade"	<ol style="list-style-type: none"> <li>1. This modification will be completed during U2R22</li> </ol>	OUT	Installation complete - OA 1059, 8700
97-022	SH	Modification 96-57, Addition of Relief Valves to Containment Piping Pent	<ol style="list-style-type: none"> <li>1. Install relief valve to relieve pressure between CV-313 &amp; CV-313A during this refueling outage</li> </ol>	OUT	Installation pending - OA 8207

50:59 Number	Reviewed	Title of 50:59 (For those Associated with Commitments)	Commitments Made	CODE	STATUS
97-022-1	SH	Modification 96-57, Addition of Relief Valves to Containment Piping Pent	1. Install spring check valve to relieve pressure between CV-313 & CV-313A during this refueling outage.	OUT	Installation pending - OA 8207
97-028	SH	MR 97-008 New Charging Pump Flow Gage for IST	1. SHOULD install new flow indicator across FE-128 during U2R22 2. Install as QA, SR, and seismically supported.	OUT	Installation Pending - OA's 6862, 3943
96-091-02	SEG	Temp Mod 96-017, 96-018, repair SFP outlet MOVs SW-2930A&B	1. Complete prior fuel motion for Unit 2 1996 refueling outage	PREOUT Complete	Restored A=9/26/96 B=OA 1650
97-035	RJP	Isolation of BAST from SI suction	1. Revise CL-7A and CL-7B (2) SI-826A from open to shut	Prior to use	Completed previously
97-053	RJP	SLP 3 revised	1. Revise SLP 3 to indicate safe loads over control building and turbine building	Prior to use	In progress
97-010	SH	Preventing EDG Overload During SI Pump Operation when an EDG is Aligned to Supply Emergency Power to both Units	Modify the following Procedures 1. PBTP-051 2. IT-01 3. IT-02 4. IT-530A 5. IT-530B 6. IT-535A 7. IT-535B 8. IT-760 9. IT-765 10. CI-100	Prior to Use	Permanent Change 1. 1/25/97 Temp Changes 2. 1/31/97 3. 2/8/97 4. 5. 6. 2/13/97 7. 2/13/97 8. 1/31/97 9. 1/31/97 10. 12/27/96
97-011	SH	Temporary and permanent change to IT-06 & permanent change to IT-05, Containment Spray Pumps & Valves (Quarterly) U2 & U1 respectively	Rewrite the procedure to include 1. Starting CS Pump on Mini-Recirc vs. full flow test line 2. Classify the procedure as a IPTe 3. Make the Dedicated operator Level 1 (vs. 3) 4. Valve LU will be performed prior to starting pump 5. 15 min. time limit	Prior to Use	Permanent Changes Made 1/28/97 Test Completed IT-05 12/23/96 - OA 1755 IT-06 1/30/97 - OA 2036

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 20

**Commitment Description:** Review items from existing open item lists (e.g., NUTRK) to identify potentially degraded equipment. Other lists which could identify potentially degraded equipment must also be reviewed per this commitment, including informal lists in peoples' desks, etc.

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.

**Completion Timing:** This should be completed prior to the Unit 2 core loading. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Criteria to Closeout This Item:**

1. Completion of the review defined in the "Commitment Description" section.
2. Each Group Head has informed the Restart Issues Coordinator:
  - That the review described in the "Commitment Description" section has been completed for their group.
  - What potentially degraded equipment was identified from their review (reference a NUTRK identification number, etc. to uniquely identify the document addressing the issue).
3. The Restart Issues Coordinator has:
  - Verified that the Group Heads have reported the data listed immediately above (in item 2).
  - Distributed a listing of the documents reported to him which identify potentially degraded equipment, so that the issues can be addressed.
4. Completion of an independent verification.

**Independent Review Results:**

From a review of all open NUTRK items through February 24, 1997, potentially degraded equipment issues were identified.

**Status:**

This review is in progress.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 21

**Commitment Description:** Review open items from the Design Basis Document development program.

The scope of this review will be examining the identified documents for accuracy and compliance with requirements. 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.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Independent Review Results:**

The following was noted by the independent review:

#### **DBDOI-50-001**

This item needs more explanation. This item does not address other hazards like flooding, missiles, etc. If this information is not available, a condition report may be needed to adequately address the acceptability of this condition. Subsequent to this initial review, DBDOI-50-001 response has been revised and is acceptable.

#### **DBDOI-03-008**

Condition report addresses nuclear safety issues only. Additional wear on components may be acceptable; however the need for additional periodic monitoring is not addressed. Also, the potential for a personnel safety issue due the additional wear on this pipe is not addressed. As appropriate, consider documenting that this is or is not a personnel safety issues.

#### **DBDOI-06-004**

The valves in this item may be code related if they are protecting code vessels. If they are code related, periodic testing is necessary, and therefore the setpoints must be known. WE should consider evaluating if these are code related, and if so, a condition report may be necessary to track this item.



DBDOI-06-005

The issue documents the missing design information for the nitrogen bottles for the pressurizer PORV's. It appears that there are no known discrepancies for this equipment. However, given the operator preference to use these valves in the EOPs, further analysis may be appropriate. WE should consider determining and validating this information.

DBD-12

In addition to reviewing the WE open item list, the open items in DBD-12 were reviewed. The DBD had three open items. One item was reviewed during the WE review, and two were closed by Condition Reports.

However, one of the open items in DBD-12 was quite significant and as a result its CR, CR 94-633, was reviewed. This issue relates to the underperformance of the service water pumps. According to CR 94-633 a prompt operability determination was not done. This open item describes that the hydraulic analysis at the time did not account for any pump degradation. IST allows degradation prior to action being taking. When reviewing the CR 94-633 action item status report, it appears that the correct technical actions were taken to revise the analysis over a period of approximately 1 ½ year. However, a prompt determination of operability was not performed. This may indicate further review is necessary on the CR process.

If the DBD Open Item was considered significant at the time, a CR was written and the DBD Open item was closed by the CR, as appropriate. However, the CR processing may have allowed closure without the appropriate operability determination. This is an example of where prompt determination of operability was not addressed by the CR process.

Status:

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 22

Commitment Description: All open operability evaluations for Unit 2 and common equipment will be reviewed for acceptable closure of the degraded equipment issue. Disposition outstanding issues in accordance with 10CFR50.59 and Generic Letter 91-18.

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.

Completion Timing: This should be completed prior to the Unit 2 approach to criticality. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### Criteria to Closeout This Item:

1. Completion of the review defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Restart Issues Coordinator which addresses (report using the NUTRK system - NUTRK U2R22 RESTART Action # 22):
  - When the review occurred.
  - Which specific open operability evaluations were reviewed.
  - Documents initiated or changed as a result of this review. The identification number for each of these must be included in this summary, and a copy of those documents sent to the Restart Issues Coordinator for inclusion in the Restart Issues File.
  - Significant items/issues identified during conduct of the review and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).

- Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

4. Completion of an independent verification.

**Independent Review Results:**

According to NP 5.3.7, the "Operability Determinations Notebook", located in the Work Control Center, will contain those Operability Determinations for which "final resolution has not been achieved". In the context of this procedure, the strict interpretation of these requirements would indicate that the "Operability Determinations Notebook" will contain only those determinations not yet completed (and therefore "open" as used in the wording of Restart Commitment No. 22). Because of the time constraints specified in NP 5.3.7, this notebook, by nature, would contain only a few "open operability determinations" still in review for operability. In reality however, this notebook contained about 69 Condition Reports and operability determinations with over half of these dating into 1996 and 1995. It was clear to this reviewer that the expectations for the content of this notebook had changed with time.

While the notebook contained some 69 items, it was not clear what value these items had to the PBNP staff since it did not appear to be a current or relevant source of information for "open operability determinations. From discussions with several PBNP staff members familiar with Restart Commitment No. 22, this notebook was not a document that would support resolution of this commitment. This conclusion is further supported by the approach taken by the PBNP staff in pursuing closure of Restart Commitment No. 22.

The following items were identified by the independent review effort as having relevant operability concerns (from a listing of all NUTRK open items through February 24, 1997):

- CR 92-843      This open Condition Report action challenges the validity of surveillance data collected on RCS Flow. Since appropriate corrective action has not been documented in NUTRK as having been evaluated, the validity of routine Technical Specification surveillance results could be in question.
  
- CR 96-385      This open Condition Report addresses indications from action taken as a result of a 1991 LER, that "...there are cases where the separation criteria are not being met" relative to Main Control Board wiring. While the "supporting determinations" section of this Condition Report does not provide compelling arguments for continued operability, it does conclude that there is "no evidence at this time to support that any components are inoperable". Given that the Condition Report is not resolved, and a confusing determination of operability remains within the Condition

Report, there appears to be a significant challenge to operability for safety related components with wiring in the Main Control Board.

- CR 96-539 This is a follow-on to CR 96-385, which resulted in an LER 266/96-007-00 that documented operability issues with several safety related components as a result of the cable separation issue. This open Condition Report, and related incomplete activities, are considered to be challenges to the operability of safety related components with wiring in the Main Control Board that do not meet the separation criteria. It is noted that a draft JCO 97-01 and a draft Rev. 2 to the CR 96-385 operability determination exist that potentially justify continued operation with a non-conforming design condition.
- CR 96-530 This open Condition Report questions the validity of the design basis heat load for the Service Water System. The point of issue is the heat load assumed in the unit without the design basis accident. CR 93-083, referenced in CR 96-530, evaluated the same issue based on licensing basis conditions (that is, the non-accident unit remains operating or at hot shutdown). The issue raised in CR 96-530 is an attempt to recognize the real system constraints if the non-accident unit were in a condition requiring RHR System operation. The information in NUTRK, documented in response to CR 96-530, does not satisfy the action item and therefore the CR 96-530 remains open. While this does not represent an operability issue in licensing space, it does challenge the adequacy of operating procedures to deal with likely operating conditions and the need for engineering responsiveness to adverse conditions.
- CR 97-0017 This open Condition Report challenges the design assumption of breaker coordination for the Emergency Diesel Generators (GO1 & GO2) output breakers. The challenge results from the inability to locate the calculation or analysis that demonstrates this coordination among loads and output breakers exists. While the "supporting determination" section of the CR indicates that this is not considered a reportable condition or an operability issue, there is no compelling argument provided that convinces one that if this design assumption is not available, that the design basis accident analysis is not adversely affected. That is, if the coordination of breakers is not capable of being demonstrated by analysis, then this would be considered a non-conforming condition for which the single failure does not apply. That is to say, the single failure in the accident analysis can't be the lack of coordination of breakers. Therefore, if coordination of breakers cannot be assumed, then it would appear that neither safety train can survive the licensing basis safety analysis assumed accident conditions.

- CR 97-0343 This open Condition Report challenges the "Uncertainty and Setpoint Calculation" for two Reactor Protection System Setpoints. While this reviewer does not think the issue resolution will change the RPS setpoints, the sensitivity to clearly document a resolution to an issue that is directly responsible to protect the Reactor Core Safety Limits must be considered in the schedule for resolution. Until a compelling argument can be documented to close this CR, it should be viewed as an operability issue needing resolution prior to restart.
- CR 96-1772 This open Condition Report is labeled as a restart issue. It identifies a weld repair required on 2CC-768 (Excess Letdown Heat Exchanger Relief Valve) with WO 9613897. The work associated with this work order number is not yet complete. It is noted that the "System Open Item Tacking Book" does not contain this item as a restart item in the CCW section. It is also noted that the CCW "System Recovery Book" does contain WO 6613897 in the listing of open work on the system, but there is no indication in this book that the work is a Restart Issue. Also of interest is that LER 301/96-002-00, Action Item 2 (this is the LER that initiated the CR) contains a commitment to observe 2CC-768 for flow induce vibration once flow is initiated through this section of piping. Since this is not identified in CR 96-1776 and there is no tracking activity number reference in the LER, it is not clear to this reviewer how this commitment is being tracked to completion.
- LER 266/96-002-00 Action Item No. 3 contains apparent open actions with respect to the AFW System. Several of these actions relate to understanding the Design Basis and NRC Commitments for the AFW System as well as an actions related related to Restart Commitment No.78. Given the magnitude of the issues causing this LER and the remaining issues with the reliability of the AFW System, it would be this reviewer's assessment that this item is a Restart Item to be completed prior to heat up of either Unit at PBNP.
- CR 96-401 Open Action No.2 discusses SW cooling problems to the AFW Turbine and Pump Bearing. This issue affecting the reliability of AFW should be resolve prior to restart.
- CR 96-264 This open Condition Report contains 9 action items relating to the AFW System. Only item 8 appears closed despite the status being tracked in NUTRK. For example, action 2 is tracked as closed and references a wrong SER to justify the AFW Pump issues when powered from the D/G. Action 4 is closed to an open NUTRK item DBDOI-16-001. These two actions along with the remaining 6 which are tracked as open are considered by this reviewer as restart issues.

- CR 96-715 This open Condition Report is another AFW reliability issue related to the pump discharge pressure controller operation. This is considered a restart issue by this reviewer.
- EW 97-016 This open engineering work request relates to testing the turbine driven AFW pump (2P29) on steam supplied from Unit 2 RCS Pump Heat. This test is labeled as required to be performed prior to returning 2P29 to service. Resolution of this EWR is therefore a restart issue.
- CR 95-205 This re-opened Condition Report reflects the operability concerns with AFW Flow control. The particular concern in this CR is when AFW flow controllers are in manual with flow adjusted below accident required flow when the hypothetical accident occurs. The concern being that operator action would then be required to achieve accident required flow. Resolution of this CR is considered to be a restart issue.
- CR 97-0109 This open Condition Report reflects a concern for AFW flow capabilities to 1HX-1B (Unit 1- B S/G) due to IAF4000 being stroke limited. Resolution of this CR is considered a restart issue.
- EW 97-008 Action No. 1 on this engineering work request is to evaluate the elimination of the 3-minute time delay for the AFW pumps' recirculation valves. Resolution of this request is considered a restart issue. It is noted that the resolution of this concern should not be performed in isolation from the other open AFW reliability concerns.
- CR 96-1537 This open Condition Report reflects a speed control issue with the steam drive AFW pump due to condensate in the steam supply lines. The Condition Report indicates this to be a normal occurrence and that it is a long term issue needing investigation. It appears to this reviewer that the Condition Report underestimates the adverse conditions created by condensate admission to the turbine. The US nuclear industry has documented overspeed trips on AFW pumps due to this condition. As a result, the existence of condensate in the steam lines, sufficient to cause a speed control problems, has been considered a direct and immediate challenge to the operability for the turbine. This industry concern is believed to be described in an SOER issued by INPO in the late 1980's. SOER 86-01 discusses AFW reliability in other specific areas which may also be a helpful source of information regarding these restart concerns. It is believed that another SOER discusses the condensate issues with the turbine driven AFW pumps. The specific reference, however could not be located at this time. Disposition of this CR needs to be completed prior to plant heatup.

- CR 95-155 This open Condition Report describes a potential single failure resulting in disabling the auto start of the steam driven AFW pump on undervoltage. This open CR needs to be dispositioned prior to plant heatup.
- TWR 96-08 This open training request has 3 actions to provide training to the technical, management, and operations areas for TSCR 170. This TSCR affects the CRD Power Distribution Limits and the Operational Safety Limits sections of the Technical Specifications. Proper resolution of this request is considered a restart issue.
- SOER 96-02 The action to address this SOER appears to be undefined at this point. Since the SOER reports on a compilation of events that involved problems with the implementation of new reactor core designs, there are potential restart concerns for Unit 2.
- CR 96-1486 Open action no. 2 for this Condition Report addresses a concern for the start times for the containment fan cooler and containment spray pumps used in the FSAR Safety Analysis. This action is identified as a restart issue in the NUTRAK documentation.
- CR 97-0169 This open Condition Report address a concern for "Safety Analysis Uncertainty Due to Water Being Held in the Lower Refueling Cavity". This is identified as a restart issue for both Unit 1 and Unit 2 in the NUTRK documentation.
- CR 97-0179 Action 2 for this Condition Report remains open and involves a containment integrity issue with the use of diaphragm valves. This issue should be resolved prior to setting containment integrity.
- CR 97-0117 Action 1 for this Condition Report remains open and involves a concern that there is "potential to be Outside the Reload Safety Analysis in EOP 1.3". This issues should be resolved prior to restart.
- CR 96-1796 This open Condition Report has concerns for the cooling capacity and ethylene glycol mixture in the Control Room HVAC system. Since this could be a potential control room habitability issue, it should be resolved prior to restart.
- CR 96-1746 This Condition Report describes an event where the RHR Pump was operated without a flow path. 7 of 8 actions defined by the review of this event remain open. In light of the human performance focus on this event and other recent events at PBNP, these actions should be resolved prior to restart.

- IR 96-012 This NRC inspection report has several open and closed actions documented in the NUTRK system. Of particular interest to this reviewer is the action 4 which was closed by a confidential memo PBM 97-0178, dated 2/24/97. This memo was the report from PPI on the root cause evaluation of human performance errors that have occurred at PBNP during 1995 and 1996. It is inconceivable that this report does not contain restart issues. In addition of this closed item, several open items exist that would seem to be restart issues to this reviewer.
- CR 97-0297 This open Condition Report documents an event that damaged the Unit 2 Fuel Transfer Cart in January 1997. There are open action that address a root cause evaluation and the repair of the system. These would appear to need resolution prior to fuel load.
- CR 97-0479 This open Condition Report documents loose body to bonnet bolts on 2MS-244. This condition was repaired by WO 9701772 and is awaiting PMT. This Condition Report should be closed prior to restart of Unit 2.
- CR 97-0392 This open Condition Report documents deficiencies with the 10CFR50.59 Safety Evaluations During OSRC Subcommittee Review. The documentation in NUTRK indicates that this is a restart issue.
- LER 266/97-001-00 This report contains 3 open actions related to Safety Injection Delay Times Exceeding Design Basis Values. While the analysis appears to have been completed, these actions should be closed out prior to restart.
- CR 97-0425 This open Condition Report identifies a concern for U2R22 scheduling seemingly lacking a concern for nuclear safety. Discussions with the originator identified that this CR is narrow in scope to the period of time when the Rx Head is being install and re-tensioned. The originator's concern is that this activity requires a mid-loop (reduced inventory) RCS level, and therefore the work completion should proceed on a schedule which would minimize the time in the reduced inventory condition. This concern is consistent with those reflected in GL 88-17. In any event, this CR should be resolved by documentation of management expectations before the time Rx Head installation takes place.
- CR 97-0576 This Condition Report describes the potential operability issue with CC-722A and CC-722B, the Unit 1 and 2 Component Cooling Water Cross Connects. Subsequent to this report, an LER was reported to the NRC when the discharge cross connect (CC-722B) was unable to be opened by the procedural guidance provided to test open this valve. It is noted that CR 95-128 documents a plant condition that took credit for this cross connect feature while the plants were operating. The issue of operability and reportability need to be resolved prior to restart.



- CR 97-0547 This open Condition Report describes an issue of high vibration and unexpected type bearing found in P-32A motor. This condition is also described in CR 97-0513. This issue needs to be resolved in both CR's prior to restart of either unit.
- LER 266/97-003-00 This LER has open actions in the NUTRK system describing needed LLRT work on two spare containment penetrations. These are restart issues for both Units.
- CR 96-1743 This open Condition Report describes a concern over the acceptability of cross connecting the SI Accumulators and reference IN 96-031 (also an open NUTRK item). Since OI 100, "Adjusting SI Accumulator Level and Pressure", Rev.6, dated 12/27/96, was confirm to prohibit the cross connect line up (Precaution 2.6), it would appear that this CR could be closed. If this action was not sufficient to close these two open NUTRK items, then action should be taken to complete these prior to restart.
- CR 97-0517 This open Condition Report describes a potential unanalyzed scenario associated with filling the SI Accumulators. Two open actions pertaining to this CR appear to be closed when reviewing OI 100. This Condition Report should be resolved and closed prior to restart.
- PPE-1996 This item in NUTRK identifies 58 work activities within Plant Performance Engineering. While 20 are documented "done", 38 remain incomplete and many of these relate to IST, ECT or ILRT issues. This condition may border on being an engineering work management issue for restart and should be reviewed by the PBNP staff prior to restart.
- CR 97-0372 This open Condition Report describes the Safety Injection High Head Pump (2P-15A) Trip During the early February ORT-3 Testing and the actions taken to resolve the causes for the problem. CR 97-0374, CR 97-0385 and SER 97-016 are all directly related to this issue and all need to be resolved together. The situation with 2P-15A, as this reviewer understands, is that it runs with an intermittent overload alarm when powered from the emergency diesel generators (G01 or G02). This is caused by the overfrequency condition ( engine speed issue) of the emergency power diesel generator. At the time of the ORT-3 testing, this alarm set point was set at 90 amps. This overload alarm is a permissive contact for the "Low Instantaneous Overcurrent" trip(150 amps) logic scheme. The specific condition that automatically tripped 2P-15A was that the overload contact was still closed at the time the operator started 2P-15A and the trip logic was completed. To avoid a trip of this nature in the future, SER 97-016 was approved to raise the overcurrent alarm setpoint to 105 amps. This SER does not address the root cause of the

problem being the over frequency condition of the emergency power supply. Additionally, raising the overload alarm setpoint permits the motor to be run in a condition that is above the normal service factor of 1.15 without warning to the operators. While the documentation in CR 97-0373 indicates that "NEMA standards allow operation of 1.15 Service Factor Motors up to 1.25 times rated load", this type of allowance (and any expected qualifying conditions) could not be found in NEMA Standard MG-1, "Motors and Generators" Revision No. 2, April, 1995. What is found in MG-1, paragraph 20.14.3, "Application of Motors with a Service Factor of 1.15" is that "When the voltage and frequency are maintained at the value on the nameplate, the motor may be overloaded up to the horsepower obtained by multiplying the rated horsepower by the service factor shown on the nameplate".

Nameplate conditions for this motor are as follows:

HP 700  
60 Hz  
4000 volts  
85 amps  
3575 rpm  
1.15 Service Factor

It is noted that actual operating conditions today are within the MG-1 guidance above for operating within a 1.15 Service Factor while being powered by the diesels. Moving the overload alarm setpoint to 105 amps does not provide assurance, however, that the motor won't operate above the 1.15 Service Factor. It is credible that with this higher overload alarm setpoint, the motor could be operated in a higher Service Factors than that accepted by the NEMA Standard MG-1 (1.15), and even higher than what is believed to be acceptable in CR 97-0373 (1.25).

Additionally, Section III of MG-1-1993, Revision 2, Part 20 page 5, paragraph 20.45 describes "Variations From Rated Voltage and Rated Frequency". While it is clear to this reviewer that the individual variances for voltage (10%) or frequency (5%) are met for this motor, it is not clear that the combined variance for voltage and frequency ( 10% -sum of absolute values) is met.

Based on the above information, SER 97-016 should be revised to address the diesel overspeed condition and its influence on the tripping of this motor. Raising the setpoint of the overload alarm is considered by this reviewer to be an activity that will increase the probability of occurrence of a malfunction of equipment important to safety previously evaluated in the PBNP FSAR. Based on this conclusion, this change in setpoint can be

considered an unreviewed safety question, requiring NRC review and acceptance prior to making the change.

It is noted that the overspeed issue with G01 and G02 has been a documented concern in the Independent Review of Restart Commitment No. 23 and 78. The final resolutions of these issues should be considered a Restart Issue.

- CR 96-1488 This open Condition Report describes the Service Water piping downstream of SW-64 being 90% blocked with silt/sediment. This line is described as the alternative service water line to the EDG's and Air Compressors. Resolution of this issue should be completed prior to restart.
- CR 97-0218 This open Condition Report describes a potential diesel generator overload condition. Resolution of this issue should be completed prior to restart.
- CR 95-493 This open Condition Report describes a G02 failure to start during an attempt to run in exercise. The description goes on to indicate that this is a recurring problem and a root cause analysis needs to be performed. This issue should be resolved prior to restart.
- CR 94-328 This open Condition Report describes a question concerning the ability to start and load Emergency Diesel Generators per AOP-10A. While three of the four actions appear to be closed, the issue remains open and not completely resolved. Since this is an Appendix R conformance issue, it should be resolved prior to restart.
- EWR 96-138 This open engineering work request deals with the need to filter the G03/G04 Speed Switch power since the speed switch operated while the engine was shutdown (as reported in CR 94-618). The 1994 CR was closed based on the new tracking item EWR 96-138. The age of this issue and its relationship to the reliability of G03 and G04 should point to resolution prior to restart.
- CR 96-122 This open Condition Report describes the need to evaluate the replacement of the G01/G02 Start Circuit with a single Start Circuit. The description goes on to say that the existing scheme appears to expose G01/G02 to more failures. This issue is one of many that by itself may not be a restart issue. However, with the number of D/G issues that are not yet resolved, it would be prudent to disposition this CR prior to restart.

- CR 96-1422 This open Condition Report discusses the potential for G01/G02 Air Relay Valve Failures due to rust or scale in the air start receiver. There are two open actions being carried with this CR that need to be resolved prior to restart.
- CR 96-1443 This open Condition Report describes the failure of the EDG air start motor to disengage, and the need to establish a preventive maintenance task that would prevent the likelihood of this happening in the future. This is another issue that by itself would not be a restart issue, but because of the number of D/G issues that challenge their reliability, this CR should be dispositioned prior to restart.
- CR 96-1386 This Condition Report describes a situation where the G01 Woodward Governor was inoperable due to a jammed spring clip in the gears. The CR requests a root cause evaluation and includes a recommendation to change procedures to check the governor when the engine is shutdown. The disposition of this CR is considered a restart issue.
- CR 96-026 This open Condition Report describes the Containment Fan Cooler potential water hammer issue. This is a JCO issue described in the Independent Review of Restart Commitment No. 18. The resolution of the JCO Administration, by itself, may not be a restart issue. However, the processing of degraded or non-conforming conditions that challenge an operability determination must be clearly understood, practiced and documented by the PBNP staff so that the licensee, including the licensed operators, know of or where to find these evaluations.
- CR 95-593 This open Condition Report describes errors in the Emergency Operating Procedures Setpoint Document. Seven actions were generated by this CR, and it appears four are closed with action not taken except to transfer the responsibility to another responsible party. This EOP setpoints and the setpoint document needs to be correct prior to restart.
- CR 94-147 This open Condition Report describes the need to establish normal and adverse EOP setpoints for reactor level with two RCP Pumps running at a 25% void fraction. This issue should be resolved prior to restart.
- WEST TB 94-02 This open NUTRK item is tracking a Westinghouse Technical Bulletin that discusses damaged fuel assemblies during refueling. The applicability to PBNP has not yet been completely established. This issue needs to be completely resolved prior to fuel reload. The NUTRK documentation reports that this has not yet been done due to lack of resources.

- CR 97-0497 This open Condition Report discusses issues with Temporary Modifications that do not satisfy the procedural controls for this type of activity. While this appears to be only an administration issue rather than an operability issue, the lack of admin control of TM's could be easily become a larger configuration control issue preventing restart.
- CR 97-0556 This open Condition Report discusses concerns for the adequacy of a Technical Specification Surveillance procedure. Since the issue relates to the accuracy of the Nuclear Instrumentation that is feeding the Reactor Protection System, it would seem appropriate to resolve this CR prior to restart of the unit.
- CR 96-321 This open Condition Report discusses a failure of a containment cooling fan backdraft damper and raises the issue of aluminum inside containment. The issues described in this open CR needs to be resolved prior to restart.
- CR 97-0129 This open Condition Report describes an issue with the aluminum inventories in containment. This CR needs to be resolved prior to restart.
- CR 96-1599 This open Condition Report describes a potential internal flooding issue due to the Unit 2 Tendon Access Gallery Sump Pump being unable to function. This CR needs to be resolved prior to restart.
- CR 96-309 This open Condition Report describes the potential degradation of SI -850 A&B. Action 2 & 4 discuss the physical location of the actuators for these valves. This CR references EWR 96-104 which evaluates relocating the actuators up 18 inches to avoid submergence. EWR 96-104 was initiated by CR 96-195. These open and interrelated CR's represent a potential degraded condition needing to be resolved prior to restart.
- CR 96-157 This open Condition Report describes an erratic closing action on 2WG-1787. Since this appears to be a containment isolation valve, this CR should be dispositioned prior to setting containment integrity.
- SOER 96-01 This Significant Operating Experience Report from INPO has not yet been documented as being reviewed in accordance with the NP 5.3.2. The documentation that exists in NUTRK for this item explains delays in the evaluation due to higher priority issues. Since the content of this experience report is perceived to be very much pertinent to the PPI report (PBM 97-0178, dated 2/24/97), the disposition of this SOER should be considered a restart issue.

- CR 96-891 This open Condition Report describes a potential conflict between Technical Specification 15.3.12.2.b and the NUREG-0737 guidance for Control Room Charga Efficiency. This has the potential of challenging Control Room Habitability and therefore should be resolved prior to restart.
- CAL RIII-96-012 This NUTRK item is actions required in response to the Confirmatory Action Letter identified in this item. There are 8 actions listed with only one completely closed. The remaining items need to be dispositioned prior to restart.
- TWR 96-059 This open training request relates to the need to provide initial and continuing training on the material contained in TSCR 188, and 189. This action is closely related to Restart Commitment No. 80 which relates to obtaining these amendments. Resolution of this item is considered a restart issue.
- CR 96-780 This open Condition Report discusses a potential Technical Specification violation with the Duty Technical Advisor's shift coverage expectations. This issues may have been resolved already. In any event, this open CR needs to be dispositioned prior to restart.
- CR 96-800 This open Condition Report describes a situation where the RPS setpoint changes resulting from the replacement of the S/G's were not reviewed for impact on Reactor Engineering Procedures. This is another item that maybe resolved already. In any event, this CR needs to be dispositioned prior to restart.
- CR 96-440 This open Condition Report describe an unusual noise heard during RHR pump coastdown. Since the RHR pumps have been successfully run since this condition was reported, it is assumed that the issue is resolved. In any event, this open CR needs to be resolved prior to core re-load.
- CR 96-252 This open Condition Report describes the failure of Safeguards Logic Test Switches. From the documentation in NUTRK, much activity has and continues to be recorded. This open CR needs final resolution prior to restart.

The 66 open items identified above are believed (by the Independent Reviewer) to be issues requiring closure prior to restart of PBNP. In a few cases, closure should be achieved prior to fuel movement in Unit 2.

**Status:**

This review is in progress.

As this is a continuous process, the scheduled completion date for this commitment will coincide with the approach to criticality.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 23

**Commitment Description:** Review 20% of the Condition Reports closed since January 1, 1995 which are associated with PSA safety significant systems for degraded equipment operability issues to ensure that we have adequately identified and dispositioned operability issues. This commitment applies to all Condition Reports, not simply those applicable to Unit 1.

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.

The Restart Issues Coordinator will work with the Responsible Person to ensure the sampling methodology creates a 20% population which is both random and representative of the entire population.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Independent Review Results:**

CR 95-155

For the recommendation to verify other Chapter 14 analyses do not have a similar concern, there was a hand-written note in the file that it does not appear to affect any other analysis. The verification that other Chapter 14 analyses are not affected should be verified as a part of the formal CR closeout.

Action #2 was added to address this issue and is in the closure process. Other than closure of Action #2, no further action is required.



### CR 96-850

This CR did not have a clear resolution path. SER 96-028 deleted the requirement for the dedicated operator for AF-4012 during ORT-3A, then this was evaluated with Operability Determination 96-264. SER also referenced 4 other SERs (96-022, 96-023, 96-025, and 96-027).

- SER 96-023 invoked the requirement for the dedicated operator for PBTP-043, but this requirement was not added to PBTP-043.
- Three documents prepared in the same timeframe (SER 96-023, 96-028, and PBTP-043) had different requirements, with the Operability Determination in the CR closure providing the final determination.
- With these multiple documents, they should be consolidated to ensure conflicting requirements do not result. This is especially true for the 50.59s. SER 96-022 should have been updated rather than generating SER 96-028.
- The recommendation in CR 96-850 states that "an operability evaluation is only acceptable for an interim period, and if the deficiency cannot be corrected in a timely manner, a 50.59 must be performed to determine if a USQ exists". The basis for this administrative difference between the need for an operability determination and/or a 50.59 is not clear. These two evaluations complement each other and don't appear to be exclusive of the other based on a sense of how long the condition will persist.

The conclusions of SER 96-023 to assign a dedicated operator to ensure P-38A could be controlled or restored quickly following a diesel loading at high frequency is appropriate as an interim measure to compensate for the Emergency Diesel Generator (EDG) speed control problem for the AFW pump. However, the SER does not address other safety related pumps/motors that could be overloaded as a result of high frequency.

The conclusions of SER 96-028 to remove the dedicated operator based on the assurance that the same timing and response will be provided by the control operator as a result of training and EOP changes does not seem appropriate. Even though the needed controls are in the control room, the responsibilities of the control operator during a transient requiring the EDG to power P-38A should not be compounded. Credit for operator actions from the control room in less than 10 minutes due to known equipment problems seems inappropriate without a dedicated operator.

FSAR Section 12.4.1 "Written Practices" is referenced in SER 96-028 in the statement: "Operator actions provided in the emergency operating procedure set are required to mitigate the consequences of an accident as stated in FSAR 12.4.1". This interpretation of FSAR 12.4.1 does not seem consistent with the FSAR wording. These procedures are required and they will mitigate the consequences of an accident. However, in the concept

of defense in depth, they should not replace or negate the need to have the required protective equipment operable at the time of the transient. If P-38A is known to trip, restating the pump with a dedicated operator seems reasonable and adds little risk in the short term. To rely on operator action in the near term, without a dedicated operator, does not appear to be supported by this FSAR section.

Operability Determination 96-624, attached to the condition report, concludes that the probability of an occurrence of an accident is not affected by the release of the dedicated operator and that P-38A is considered operable. This may not be the case since the P-38A pump may be in a degraded condition from the original design assumptions. NUREG 737, Item II.E.1.1 required evaluation of AFW reliability among other AFW issues. It has been previous regulatory practice to accept some form of dedicated operators to compensate for degraded conditions of AFW reliability.

#### Recommendations:

1. Review PBNP response to NUREG 737, Item II.E.1.1, "Auxiliary Feedwater Evaluation". Ensure the current assessment of the degraded reliability of P-38A is consistent with the licensing commitments made for the PBNP AFW system.
2. Restore the dedicated operator for P-38A in the short term.
3. Resolve the root cause of the P-38A tripping in the near term.
4. Evaluate the reliability of the other safety related motors which would experience the high frequency condition when initially powered from G-01 and G-02.

#### Action:

Condition Report 97-0415 was initiated to address these issues from the CR 96-0850 review. CR 97-0415 was later closed to OSRC Meeting #56, Action Item #1. In the interim, the dedicated operator has been reinstated. The four recommendations noted above are addressed in CR 97-1210, which should be noted as a restart issue.

#### CR 95-079

The short-term corrective actions were adequate. Long-term action plan is appropriate, but the status of the work cannot be determined from the CR, which was closed 2/13/96. In discussions with the Responsible Engineer, these modifications have been completed for G-04, but not for G-03. The CR implies that these modifications were to be completed in 1996. Since the majority of the cold weather for this winter is over, the short-term corrective actions appear to have been adequate; therefore, equipment operability is felt to be acceptable. However, this example illustrates the problem of closing a CR based on a long-term plan which provides no means to track completion of corrective actions.

CR 96-974

STP 14.6 needs to be updated for the new ranges noted in SER 96-057. CR was re-opened and then closed, but the update of STP 14.6 as described in SER 96-057 has not been done.

The following items were noted which could affect equipment operability.

- CR 95-083 Not clear that should have been closed. Only addresses course of action, not completion. WO Tag that was used to close CR (78063) was not found in CHAMPS.
- CR 95-496 Not clear that repair was made or problem resolved.
- CR 96-1410 Not clear that should have been closed. Operability status should be in the CR closeout.
- CR 95-440 Closure discusses informing Westinghouse, but no follow-up from Westinghouse on any other long-term action required. Also reviewed CR 95-421.
- CR 96-1230 Relief valves not installed properly. The referenced Work Orders have not been issued yet. Operability needs to be addressed with this relief valve configuration in the interim until they are installed properly.
- CR 95-321 Cannot find referenced Work Order to determine if work has been completed.
- CR 96-033 Could not determine if heat exchanger is repaired.
- CR 96-119 CR closed to Work Order, but Work Order not issued yet.
- CR 96-432 CR closed to Work Order, but Work Order not issued yet.
- CR 96-567 Closure status not clear in initial review.
- CR 96-725 The impact of delaying replacement of the pressure switch is not addressed.
- CR 95-333 Closed CR to Work Order 11/95. Work Order has not been issued.
- CR 96-727 Not clear if work has been completed. By only reviewing the CR, it is not possible to assess the severity of this problem. It should have been

addressed in the CR about the degree of severity of the peeling paint on the filters and the operability impact.

- CR 96-282 The deficiency in the procedures (IT-290B and IT-295B) was properly updated. Basis for 50.59 screening is weak.
- CR 96-131 Screening adequate. However, the CHAMPS update is not addressed. Also, reviewed SER 95-010. CHAMPS should be updated as recommended in CR.
- CR 96-134 It is noted that a team has been formed to review closed systems. However, it is not clear if there has been any action in this task.
- CR 95-357 While not considered an operability issue, the CR does not adequately show closure, only that drawing updates will be done and a Work Order has been written to remove the sump pump from the Ready to Start circuitry.
- General: Many CRs are closed to Work Order or other document. While closing to another CR to prevent redundancy is appropriate, closing to a Work Order or other means which is not tracked for closure, is not felt to be appropriate. This will be addressed in more detail in Restart Commitment #32.

The Independent Review effort recommended that the following Condition Reports (18) be re-opened:

CR 96-850	CR 96-974	CR 95-079	CR 95-496
CR 95-083	CR 95-440	CR 96-1410	CR 95-321
CR 96-1230	CR 96-119	CR 96-033	CR 96-725
CR 96-432	CR 96-727	CR 95-333	CR 95-155
CR 96-567	CR 96-322		

**Status:**

Verified closed. The associated documentation was provided to the NRC.

This review was expanded to a 100% review of the PSA safety significant systems, due to operability issues identified in the 20% review.

The review has been completed. The following closed Condition Reports were identified by the Point Beach review as needing re-opening and have been so re-opened:

From the 20% Review (14)

95-098  
 96-131  
 96-231  
 96-740  
 95-155  
 96-1327  
 96-1435  
 96-1839  
 95-452  
 96-642  
 95-493  
 95-597  
 96-285  
 95-331

From the Expanded (100%) Review (29)

96-023	96-829	96-134*
96-076	96-964	
96-1772	95-408	
96-1322	95-409	
96-265	95-444	
95-205	95-489	* redundant
96-080	95-526	to others, so
96-099	96-1689	not to be re-
95-149	96-182	opened.
95-636	96-207	
96-1301	95-158	
96-809	96-070	
96-827	97-0060	
96-054*	96-1312*	

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 24

**Commitment Description:** Complete an additional Outage Safety Review for the startup phase of the outage. This will evaluate the remainder of the outage schedule from a nuclear safety perspective, not a scheduling perspective.

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.

**Completion Timing:** This should be completed prior to the Unit 2 core loading.

**Criteria to Closeout This Item:**

1. Completion of the review defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Restart Issues Coordinator which addresses (report using the NUTRK system - NUTRK U2R22 RESTART Action # 24):
  - When the review occurred.
  - A description of what was reviewed.
  - Documents initiated or changed as a result of this review. The identification number for each of these must be included in this summary, and a copy of those documents sent to the Restart Issues Coordinator for inclusion in the Restart Issues File.
  - Significant items/issues identified during conduct of the review and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

No discrepancies yet noted.

**Status:**

One review was conducted on February 5, 1997. Another will be conducted approximately 7-10 days prior to core load (needed to do another due to the delay in the outage schedule).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 25

**Commitment Description:** Conduct an integrated review of all outage licensing commitments (50.59's, enforcement conference items, Technical Specification Change Requests, and the Reload Safety Analysis). Ensure all requirements are met.

The scope of this review will be to identify outstanding licensing commitment issues which need to be resolved prior to mode changes. Those issues will then be appropriately resolved. 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.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown.

### **Criteria to Closeout This Item:**

1. Completion of the review defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Restart Issues Coordinator which addresses (report using the NUTRK system - NUTRK U2R22 RESTART Action # 25):
  - When the review occurred.
  - A description of what was reviewed.
  - A list of the outstanding licensing commitment issues that need to be resolved prior to mode changes.
  - Significant items/issues identified during conduct of the review and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.



**Independent Review Results:**

No discrepancies yet noted.

**Status:**

In progress.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 26

**Commitment Description:** Revise ORT-3 and DCS 3.1.11 to ensure Technical Specification 15.4.6.A.2 testing includes dynamic loading of the EDG with sequenced loads.

**Completion Timing:** This should be completed prior to the Unit 2 core loading.

**Independent Review Results:**

No discrepancies noted. The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

**Status:**

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 27

**Commitment Description:** Test all EDGs in accordance with revised ORT-3 and DCS-3.1.11. Return the electrical systems to normal alignment prior to leaving cold shutdown.

Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

**Completion Timing:** This should be completed prior to the Unit 2 core loading.

### **Criteria to Closeout This Item:**

1. Completion of the actions defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Restart Issues Coordinator which addresses (report using the NUTRK system - NUTRK U2R22 RESTART Action # 27):
  - When the actions defined in the "Commitments Description" section were completed.
  - Significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the task are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

During the performance of ORT-3, speed control (frequency) and diesel loading were documented for all four diesels as follows: G-01 at 1180 Kwe at 61.46 Hz; G-02 at 1250 Kwe at 61.3 Hz; G-03 at 1650 Kwe at 60 Hz, and G-04 at 1620 Kwe at 60.05 Hz. ORT-3 did not require this data collection and therefore did not have any acceptance criteria. The frequency on G-01 and G-02 is well outside that which is identified in the FSAR

Chapter 8 and has been earlier identified as having an adverse affect on the reliability of the Auxiliary Feedwater Pumps (Restart Commitment # 23 Independent Review Report). This issue needs to be addressed by WEPCO and determined to be an acceptable condition for G-01 and G-02.

Because of the equipment problems experienced during the performance of the 'A' Train and because of the revised integration of the testing approach, many temporary changes needed to be made to ORT-3 to successfully perform the test. As a result of the scrutiny this documentation will receive once released to file by Operations, a QC verification of the temporary changes and their implementation should be performed to verify compliance to the Point Beach Administrative requirements for these type of procedure revisions. Specifically, QC should be requested to verify that each temporary change actually made to the procedures ( there are two ORT-3 procedures signed off for this testing) was properly addressed by the temporary change documentation.

Status:

In closeout verification.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 28

Commitment Description: Resolve the containment penetration commitments, including:

- CP-32c (Containment penetration for auxiliary charging line). A small leak (4 drops per minute at 1900 psig) was found in the 3/4 inch SI test line (CP-32b). This was documented on Condition Report 97-0003.
- Penetration thermal relief issue. This issue concerns the potential for overpressurization of piping passing through containment, the result causing a loss of containment integrity. For this to be a concern, the piping must be water-solid and isolated by two non-relieving containment isolation valves. Condition Report 96-470 was initiated regarding this following an industry operating experience item from Maine Yankee, which was followed-up by IN 96-049 and Generic Letter 96-06. The PBNP initial response to the Generic Letter was sent to the NRC under VPNDP-95-090.

Should generic issues or significant discrepancies be identified during this resolution which could negatively impact reactor safety, the scope of this effort will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown.

### Criteria to Closeout This Item:

1. Resolution of the containment penetration commitments defined in the "Commitment Description" section.
2. The Responsible Person has forwarded a summary to the Restart Issues Coordinator which addresses (report using the NUTRK system - NUTRK U2R22 RESTART Action # 28):
  - When the actions described in the "Commitments Description" section were completed.
  - What specifically was done to resolve the containment penetration commitments.
  - Documents initiated or changed as a result of this task. The identification number for each of these must be included in this summary, and a copy of those documents sent to the Restart Issues Coordinator for inclusion in the Restart Issues File.

- Significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified.
3. The Restart Issues Coordinator has verified that the:
- Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the task are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

The independent review has been drafted.

**Status:**

CP-32c (Containment penetration for auxiliary charging line) - this line is protected by air operated CV-1296, so no modification is required. It was tested per ORT-46.

CP-32b (3/4 inch SI test line) - this work is complete. Similar Unit 2 containment penetrations were inspected and found to be intact, so this is not considered a generic problem. A work order has been initiated to perform these same inspections during UIR24

Penetration thermal relief issue - the concern is being evaluated under Condition Report 96-470 (also identified by IN 96-049 and GL 96-06). The following lines were identified as concerns by the evaluation:

- P-11 (RCP seal water return line) - operability for Unit 1 required 2 inches of cal/sil insulation inside containment. Insulation was installed per Work Order 9700318. A four-hour NRC event notification was made concerning this on Unit 1, and an LER is being submitted. P-11 was modified per MR 96-057\*B (modification has been installed and is awaiting PMT) to install a check valve around 1CV-313A inside containment to provide an overpressure protection flow path.
- Potential overpressure concerns exist for the pressurizer liquid sample line (P-28b). Penetration P-28b will require pressure relief by MR 96-057\*D, for which the final installation details are being determined.
- P-12a (DI water supply line) - The Unit 1 DI water supply line has been drained four times. Three gallons drained out the first time, four ounces were drained one week later, three ounces was drained several weeks later, and 6 ounces were drained 2 months later. This confirms that the line will not become water solid during the

operating cycle due to valve leak-by (3 gallon capacity). For Unit 2, CL-1b has been revised on February 11, 1997, to ensure the DI water supply line does not become water-solid during power operation. This will result in one PAB DI hose station being removed from service. As a long-term solution, modifications will be required to allow isolating P-12a piping without causing a loss of DI water to other components. Until then, periodic draining will occur.

- P-30c (Pressurizer relief tank makeup) - this line is protected by air operated diaphragm valves, so no modification is necessary.
- P-53 (Heating steam condensate return) - this line was verified not water-solid on Unit 1. For Unit 2, this line is being cut and weld-capped per MR 96-068 during U2R22.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 29

**Commitment Description:** Complete a 50.59 evaluation for the existing CCW supply to the RCP seals as a safety function. In 1992, Point Beach Nuclear Plant committed to making this configuration consistent with the classification of that function as a safety function. This is already classified as safety related from a pressure boundary standpoint, but not for the flow function.

Should this evaluation identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of this effort will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown.

**Criteria to Closeout This Item:**

1. Completion of the 50.59 evaluation.
2. The Responsible Person has forwarded to the Restart Issues Coordinator:
  - A copy of the completed 50.59 evaluation.
  - A summary which addresses significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 29).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the task are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

This was reported as complete by the Responsible Person. The draft independent review identified that the reported closure actions did not meet the commitment. The issue has been re-opened.

**Status:**

This is in progress.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 30

**Commitment Description:** Update the diesel generator loading calculation N-91-016 to properly reflect the loading of the Containment Fan Coolers (Containment Accident Fans).

Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown.

### **Criteria to Closeout This Item:**

1. Completion of the diesel generator loading calculation task update defined in the "Commitment Description" section.
2. The Responsible Person has forwarded to the Restart Issues Coordinator:
  - A copy of the revised coverpage to the diesel generator loading calculation N-91-016 and the page showing the new reference (#61).
  - A summary which addresses significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 30).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the task are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

Not yet drafted.

Status:

This is in progress. Testing was performed during the ILRT to measure the electrical consumption of the Containment Fan Coolers, but that data has been determined to be invalid due to the use of an uncalibrated meter and the readings being taken incorrectly. Further actions to resolve this include:

- Calculation 97-0038 will be updated based on electrical current data (either nameplate data or data from another test).
- The output of that calculation will be used to revise the DAPPER software (the means to run the load flow analysis).
- The DAPPER Program will then be re-run.
- Calculation N-91-016 will be revised at the completion of the DAPPER run.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 31

Commitment Description: Evaluate the adequacy of coordination on the 120 VAC instrument bus system through a 50.59 evaluation or operability determination.

Should this evaluation identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the evaluation will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown.

Independent Review Results:

No discrepancies noted. The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 32

Commitment Description: Implement interim improvements for the Condition Reporting process, based on a review of assessments and identified recommendations for improving that process.

Completion Timing: This will be completed prior to the Unit 2 approach to criticality.

Independent Review Results:

Several recommendations for improving the process in the long term were identified.

The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

Status:

Verified closed. The associated documentation was provided to the NRC.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 33

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

Completion Timing: This will be completed prior to the Unit 2 approach to criticality.

### Independent Review Results:

Monitor procedure NP 10.3.1 feedback /Form PBF-1515 user feedback. Periodic review of 10 CFR 50.59/10 CFR 72.48 screenings should be performed to verify that the changes to NP 10.3.1 and PBF-1515 are establishing programmatic consistency of the screening documents (NUTRK U2R22 RESTART Action # 90).

The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

### Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 34

**Commitment Description:** Upgrade Unit 2 operations checklists to include requirements for initials, time, and date. During the review, verify that the checklists are technically correct.

Should this upgrade identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the upgrade will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

This is also a subset of Enforcement Conference Commitment Item # 18.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown. If some systems/components addressed per this commitment are required to be operable before that mode change per Technical Specifications, the applicable portions of this commitment should be completed earlier.

### **Criteria to Closeout This Item:**

1. Completion of the actions defined in the "Commitment Description" section.
2. The Responsible Person has forwarded to the Enforcement Conference Commitments Coordinator:
  - A listing of which Unit 2 operations checklists were reviewed, with an indication of which were revised (report using the NUTRK system).
  - A copy of each revised Unit 2 operations checklist.
  - A summary which addresses significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Enforcement Conference Commitments Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the task are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

#### 4. Completion of an independent verification.

##### **Independent Review Results:**

In reviewing the "Action Item Status Report" dated 2/11/97 for this Commitment #34, the population of Checklists reviewed for this commitment was 22 based on a list provided by Operations. This status report identifies an additional 38 checklists that are common to both Units but were deemed not to be part of the commitment. Using the Operations Checklist Index, Rev. 139, dated February 11, 1997 however, there appears to be a discrepancy with the number of checklists that are designated Unit 2. The index identifies at least 26 Checklists that are designated Unit 2.

During the review, a verification that the checklists are technically correct was to be performed. The expectations for what this review really was meant to accomplish varies with those involved with the work. From interviews with the people actually initiating several of the changes, the review was ensuring the new checklist was technically the same as the previous list, except for known new components that were added and the correction of any obvious administrative typing errors. At least on these examples, there was not a walk down of the system to verify the accuracy and correctness of the checklist as was expected by others. The "Technical Review" sign off on the change cover sheet (PBF-0026a) for these examples was not intended to verify the technical correctness of the checklist. From discussions, this signature verified the specific change to the checklist was correct. In these cases, the only changes to the checklist were administrative and therefore technical correctness of the list of components on the checklist was done to the extent described above by the initiator of the changes

##### **Status:**

This has been re-opened to address an increased number of checklists and greater consistency in the technical verifications. Field walkdowns to verify the adequacy of the checklists and P&ID's are in progress. The process to be used for this verification is as follows (complete the following tasks for each checklist):

Note: These tasks can be performed in any sequence by different personnel as long as all of the following tasks are performed for each checklist. Task 3 should be performed by an SRO or facility management.

1. Complete an in-plant walk-down the checklist in its entirety (this step can be accomplished through actual performance of the checklist or by visual hand-over-hand walk-down of the checklist).
  - a. Verify that all components encountered in a system under Operations' Department control are identified by the checklist and that all components identified on the checklist exist in the plant.
  - b. Verify all components encountered are properly labeled.

- c. Identify any discrepancies between the "as-built" plant and the checklist and submit corrective actions.
2. Technically validate the checklist to the controlled P&ID's:
  - a. Either walk-down the P&ID in the field, noting any discrepancies between the "as-built" facility and the P&ID, or table-top compare the P&ID with the field-validated checklist.
  - b. Identify any discrepancies between the P&ID and the checklist and submit corrective actions to resolve any incorrect documents.
3. Determine if checklist items require independent verification using the guidelines of INPO Good Practice 87-003 which provides the following Guidelines:
  - a. All valves, breakers, and other components in SAFETY-RELATED systems where an inappropriate positioning could adversely affect system operation or containment integrity; OR,
  - b. All valves, breakers, and other components in FIRE PROTECTION system major flow paths (includes water, halon, CO<sub>2</sub> and fire detection capability) necessary for the system to function and supply extinguishing media to the fire; OR,
  - c. All valves, breakers, and other components in gaseous or liquid radioactive waste-handling and processing systems where if misaligned would result in a radioactive material release to the environment.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 35

Commitment Description: Revise applicable IST program documents to prevent equipment from being returned to service (declared operable) with vibrations in the alert range.

Should this revision effort identify either generic issues or significant discrepancies which could negatively impact reactor safety, the scope of the effort will be expanded. Where discrepancies are identified, appropriate corrective and preventive actions will be taken commensurate with their safety significance.

This commitment is also Enforcement Conference Commitment Item # 41.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown.

Independent Review Results:

No discrepancies noted. The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

Status:

Verified closed. The associated documentation was provided to the NRC.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 36

**Commitment Description:** Revise NP 8.1.1, Work Order Processing, and NP 8.1.3, Post-Maintenance Testing, to ensure post-maintenance testing, operability testing, and surveillance testing requirements are properly addressed.

This commitment is also Enforcement Conference Commitment Item # 57.

**Completion Timing:** This should be completed prior to the Unit 2 approach to criticality.

### **Criteria to Closeout This Item:**

1. Completion of the actions defined in the "Commitment Description" section.
2. The Responsible Person has forwarded to the Enforcement Conference Commitments Coordinator:
  - A copy of the revised documents.
  - A summary which addresses significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Enforcement Conference Commitments Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the task are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

It is noted that NP 8.1.1 step 5.7 addresses identification of PMT's as the responsibility of the Work Group. However, NP 8.1.3 seems to say in step 5.1.1 that this responsibility resides with the Maintenance Manager and I&C Manager.

NP 8.1.3, Rev. 1, dated February 24, 1995 was reviewed and a reference to NP 8.1.1 could not be identified. Additionally, this procedure does not appear to address the PMT's now performed and documented in operating procedures (restart commitment # 13). There also appears to be conflicting or at least inconsistent guidance in the PMT requirements in NP 8.1.3 Attachment A, and OM 3.20, "MOV/AOV Operation and Maintenance".

Based on this independent review, it does not appear that NP 8.1.3, Rev. 1, dated February 24, 1995 satisfies Restart Commitment # 36. NP 8.1.3, Rev. 1 should be reviewed and revised as necessary to reflect current management expectations for proper Post-Maintenance Testing.

**Status:**

This has been re-opened. NP 8.1.1 and NP 8.1.3 will provide consistent management expectations.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 37

Commitment Description: Include return to service testing in the plant schedule, both outage and nonoutage.

This commitment is also Enforcement Conference Commitment Item # 59.

Completion Timing: This should be completed prior to the Unit 2 core loading.

### Independent Review Results:

No discrepancies noted. The independent review concluded that there are no items associated with this commitment which would impede Unit 2 startup.

### Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 38

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-033 - replace control power transformers on Motor Control Centers 2B32 and 2B42.

These control power transformers were identified as being relatively undersized. This modification will replace the approximately 60 existing Unit 2 control power transformers with larger ones to increase the margin for performing their function.

There are approximately 30 common control power transformers associated with this modification which will be replaced after U2R22, during a system outage or when the equipment is not required.

**Completion Timing:** The physical work should be completed prior to the Unit 2 core loading. The PMT will be accomplished at various times during and following the outage.

### **Criteria to Closeout This Item:**

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 38).
3. The Restart Issues Coordinator has verified that:
  - The Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).

- The Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
- The significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

4. Completion of an independent verification.

**Independent Review Results:**

The Safety Evaluation screening identified that Work Order 9606757 was written for replacement of breaker B52-327C. WO 9606757 identified that it was written for breaker B52-326M. A Work Order already existed for breaker B52-326M (WO 9606756), therefore, WO 9606757 was signed off noting that it was a duplicate and no work was performed. WO 9612224 was subsequently created to provide direction for replacement of breaker B52-327C. The RE was notified to make the appropriate pen and ink changes to the Safety Evaluation screening document.

Verification of pen and ink changes to the Control Room/WCC drawings was performed. The Document Update Sheet (DUS) identified that pen and ink changes to the Westinghouse Elementaries (499B466 series) are required for acceptance of the modification. The controlled drawings associated with the above Work Orders were verified to be marked-up in the WCC. During this review, it was discovered that breaker B52-429M was not identified as a spare breaker on Westinghouse drawing 499B466 Sh.597B as it is in the design documents and Work Order. The Westinghouse drawings list the breaker as the power supply to the W-12D G02 exhaust fan. Condition Report CR 97-0689 was initiated to track this restart issue. The description of the CR identifies that improper testing was performed on the breaker since testing of the exhaust fan was not conducted. However, based on review of the Master Data Book (3.2.6) and a field walkdown, this breaker is a spare and Westinghouse drawing 499B466 Sh.597B is incorrect. This CR remains valid but should be assigned to the RE of the modification which spared the breaker out. To avoid any confusion, Westinghouse drawing 499B466 Sh. 597B needs to be revised in the WCC/Control Room to accurately depict breaker B52-429M as a spare.

Work Order 9606812 was written for replacement of spare breaker 2B52-427J. The Work Plan for this breaker replacement incorrectly identified the spare breaker number as 2B52-325C. The first 12 steps of this Work Plan were performed and signed off on the 21st and 22nd of November. On November 24, all references to the 2B52-325C breaker number were lined out and changed to 2B52-427J (with the exception of step 5 which was inadvertently missed). This was done in steps which were previously signed off as being completed. Condition Report CR 97-0676 was initiated to identify this issue. A physical walkdown of the MCC's was performed to verify the replacement work. Both of the breakers had the new 150VA transformers installed. Further review of the Work Orders identified that WO 9606749 provided direction for the replacement of 2B52-

325C. In addition, the RE has made a pen and ink change to step 5 of the completed Work Order to reflect the change to 2B52-427J.

The Work Plan for WO 9606812 incorrectly lists the Reference Drawing for breaker 2B52-427J as Bechtel Drawing E-2092 Sh. 8. The actual reference should be Sh. 14. This discrepancy should only require a pen and ink change by the RE.

During PMT of WO 9606803, the functional testing could not be completed because an overload could not be reset. WO 9612665 was initiated to replace the starter with a starter from a spare bucket (2B52-425C). WO 9612665 has been verified as completed and has completed the functional testing of valve 2RH-701. A search of Condition Reports using both of the reference WO's did not find an associated CR. A CR should have been generated to track this problem.

A SQUG walkdown of the MCC needs to be completed to review the transformer replacements prior to Unit 2 restart. This review cannot be completed until all breaker replacements in the MCC are completed.

**Status:**

The physical work has been completed, and the modification is awaiting PMT.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 39

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 90-048 - replace Boric Acid and Reactor Makeup Water totalizers, replace the CVCS control switch, replace flow indicators, and refurbish flow controllers.

Due to their unreliability when operating in automatic, these controls have been used in the manual mode. This resolves a workaround issue.

Completion Timing: This should be in a conditionally accepted status prior to the Unit 2 core loading (only awaiting PMT). It should be in an accepted status prior to the Unit 2 approach to criticality.

### Criteria to Closeout This Item:

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 39).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
  - Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

4. Completion of an independent verification.

**Independent Review Results:**

The Document Update Sheet (DUS) identified that changes to the Alarm Response Books (ARB) are required. The DUS identified that these changes would be performed as a closeout item. Per discussion with Operations, it was concluded that the changes to the ARBs should be a modification acceptance item. This issue was discussed with the RE. The RE has submitted (1/11/97) a Temporary Procedure change and a Permanent Procedure change to ARB 2C04 2C 2-4 and 2C04 2C 3-4. The Temporary Procedure changes was submitted to provide immediate change to the ARB. The temporary change indicates that Plant Just-In-Time Training is required for ARB changes.

Verification of pen and ink changes to the Control Room and WCC drawings and MDB was performed. All pen and ink changes have been made to the documents listed as acceptance items on the DUS with the exception of Westinghouse Drawing 499B466 Sh. 62A. This Westinghouse drawing is a new drawing being added by MR 90-048\*B. Since the drawing was issued as a working drawing, the RE was not sure if it could be placed in the Control Room/WCC. Per discussion with the RE, a permanent drawing transfer of dwg 499B466 Sh. 62A is being expedited in an attempt to place this drawing in the Control Room/WCC ASAP. Until the permanent drawing is placed in the Control Room/WCC, the working drawing needs to be there. The document control drawing coordinator has issued a controlled copy of Working Drawing 499B466 Sh. 62A to the WCC. I have verified that the working drawing has been incorporated into the WCC controlled binders.

**Status:**

This modification has been conditionally accepted (based on flow testing to the "B" Holdup Tank). Final acceptance will require in-service testing or additional PMT after the VCT is returned to service.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 40

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications:  
Modification 94-097 - remove six RCS loop drain valves.

These valves are radiological hot spots and potential leakage paths. Due to leakage from one of these valves, the unit was forced to shutdown. Maintenance draindowns can be performed from other loop drain valves.

**Completion Timing:** This will be in an accepted status immediately after the RCS leak check, per Technical Specification 15.4.3.

### **Criteria to Closeout This Item:**

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 40).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
  - Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification

**Independent Review Results:**

No discrepancies yet identified.

**Status:**

The physical work has been completed, and the modification is awaiting PMT (completion of the RCS leak test).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 41

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications:  
Modification 92-141 - relocate the RHR flow control valve controllers on 2C03 for human factoring.

Train "A" and train "B" main control board controls typically have a left to right convention on Unit 1 and a right to left convention on Unit 2. This convention was not followed for the RHR controllers 2HC-624 and 2HC-625, and this modification corrects that. Also, the common flow controller 2HC-626 will be positioned between these two RHR controllers to improve their separation.

**Completion Timing:** This should be in an accepted status prior to the Unit 2 core loading.

### **Independent Review Results:**

The modification package documents were adequate with the exception of the Documentation Update Sheet and Closeout Checklist. The A.2 checklist item "Plant Status Update/Just-in Time Training" was identified as N/A on the checklist. On the Modification Request Approval Form, the SCE Group Head indicated the need for Plant Status Update Training for the Licensed Operations personnel under "Scope of Training". Also, discussion with Operations training personnel noted that any changes to the main control panels would warrant training prior to returning the system to service.

Follow-up interviews were conducted with the Operations Training department with respect to repositioning of the RHR controllers on the 2C03 panel. Operations Training had become aware of the proposed changes of the controllers and trained the Operators to this change in Plant Status Update Training (LOR 96-6) under Lesson Plan 2500. Therefore, training was conducted and is complete.

The modification package did not address any SQUG related issues with respect to the 2C03 panel evaluations. Per discussion with the RE, the SQUG program was not considered for the design of the modification. Subsequent discussion with the SQUG coordinator indicated that any changes to the Main Control Boards should be identified to the SQUG group for assessment. The RE has been made aware of this issue and will obtain a documented review by the SQUG group.

The Return to Service Testing Review sheet for Work Order 9605772 did not have a sign off for Post-RTS approval of the PMT testing. The appropriate I & C individual was notified and indicated that the Work Order review sheet would be reviewed and approved. The I & C approval signature has been verified, and no further action with this issue exists.

Modification 92-140 will perform the same controller repositioning on the 1C03 panel. The RE has been notified of the need for Plant Status Update Training as a documentation acceptance item and has acknowledged that it will be added to the Documentation Update Sheet and Closeout Checklist.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 42

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-073 - seismically upgrade CCW, SI, RHR, and RHR/letdown piping supports and remove an AFW snubber.

**Completion Timing:** This should be in an accepted status prior to the Unit 2 core loading.

**Independent Review Results:**

The modification package (MR 96-073), 50.59 Safety Evaluation, and Installation Work Plan were reviewed. The safety evaluation matched the modification final design (both in scope and content) with the exception of the description of the number of supports being modified. The final design description identified that 6 supports would be replaced and the safety evaluation identified 5 supports to be replaced. The IWP detailed the replacement of 5 supports which is consistent with the safety evaluation. Therefore, this does not represent a significant issue and the RE was notified to make the necessary pen and ink change to the final design description. The scope of the modification was not changed during installation.

**Status:**

Verified closed. The associated documentation was provided to the NRC.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 43

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 94-066\*A - install a soft seat in containment isolation valve 2SI-834D, and add a relief valve and pressure regulator in the nitrogen supply line to the SI accumulators.

The soft seat is being installed to improve leakage performance. The relief valve and pressure regulator are being installed to ensure the piping is not overpressurized. This resolves a workaround issue.

Completion Timing: This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### Independent Review Results:

Condition Report 96-1248 and QCR 96-085 were generated in performance of MR 94-066\*A. These CR's were reviewed, with both addressing the loss of traceability of 1" Schedule 40 and Schedule 160 piping. QCR 96-085 was closed since redundant with CR 96-1248. Original CR 96-1248 response reviewed did not show adequate resolution of non-QA Schedule 160 pipe. On discussing with RE, it was determined that the non-QA pipe was actually replaced with QA pipe with all required certifications. This resolution was incorporated in the revised CR 96-1248 response. CR 96-1248 was appropriately closed, with the correct resolution to Schedule 160 pipe traceability.

### Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 44

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-065\*B - seismically upgrade the Refueling Water Storage Tank recirculation line.

Completion Timing: This should be in an accepted status prior to Unit 2 leaving cold shutdown.

Criteria to Closeout This Item:

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 44).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
  - Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### Independent Review Results:

The issue which originally initiated this modification request was a Condition Report which raised questions regarding compliance with the FSAR which requires all seismic class breaks to be made at normally closed valves or valves which can be operated from the Control Room. The current configuration of the RWST recirculation piping has the seismic class break at manual valves which are normally closed, but will remain open for several days or weeks when RWST recirculation is in use. The Final Design discusses this situation and identifies that Operations will closely control the operation of the system by minimizing the duration of time that these valves are open and will assign dedicated Operators to close the valves if required. This Operator action has been identified as an interim condition which will only be required until the second phase of the seismic upgrade is completed.

The 50.59 safety evaluation for this modification, discusses the same scope and interim conditions that were identified in the Final Design. However, the 50.59 notes that the interim condition which involves Operator actions for operating the manual valves will be addressed in a separate safety evaluation. Review of the Document Update Sheet (DUS) and Work Plan indicates that this portion of the modification appears to have been lost from the scope of MR 96-065. The document acceptance items in the DUS and IWP identifies that PC-25 need to be made a "On Demand" procedure and administrative control tags need to be placed on the manual valves. To completely address the scope of MR 96-065, PC-25 needs to be revised to identify the dedicated operator actions w/r/t valves 1SF-820 and 2SF-820B. In addition, a 50.59 Safety Evaluation of the interim operator action needs to be completed as well as training to the PC-25 changes. These actions are significant issues to the Unit 2 restart and need to be completed as acceptance items for the modification.

A procedural revision to PC-25 was not in the administrative system. Operations was made aware of this problem and initiated temporary changes to PC-25 and PC-25A Part 1 for both units. A 50.59 screening was performed and attached to the temporary changes. However, this screening only cover the procedure change and does not detail the acceptability of a dedicated operator as expected and discussed in the final design. The RE needs to review the existing safety evaluation and determine if an additional safety review is required to address the use of a dedicated operator.

The RE needs to review the existing safety evaluation for MR 96-065 and the temporary procedure change 50.59 screening to determine if an additional safety review is required to address the use of a dedicated operator.

**Status:** This is in progress.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 45

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications:  
Modification 96-054 - install pressure gauges in the service water return header from the Emergency Diesel Generator GO1 and GO2 glycol coolers, and reset the throttle valves in that line.

GO1 and GO2 throttle valves must be reset to meet the assumptions made in the new service water flow model. Prior to the modification, valves were set using an assumed "worst case" service water return header pressure. The new gauges will allow valves to be set with actual pressure. This will better balance the service water system flows and enhance service water system performance.

Completion Timing: This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### Criteria to Closeout This Item:

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 45).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).

- Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
- Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.

4. Completion of an independent verification.

**Independent Review Results:**

No independent review has yet been conducted.

**Status:**

This work is scheduled.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 46

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-022 - install a new 125 VDC feed (for DC Control Power) to 480V safeguards bus 2B03.

This supports the effort to align DC systems which supply DC control power to the 480 V buses, 4160 V buses, and the normally aligned EDGs.

**Completion Timing:** This should be in an accepted status prior to the Unit 2 core loading.

### **Independent Review Results:**

The modification package (MR 96-022), 50.59 Safety Evaluations, and IWP 96-022-2 were reviewed. The safety evaluation matched the modification final design (both in scope and content). The scope of the modification was not changed during installation. Although the Documentation Update Sheet (DUS) identified that changes to 499 series elementaries, MDB, etc were required as an acceptance item, no sign off of completion was provided. The RE noted that since the modification package was written for both the Unit 1 and Unit 2 work scopes, this item could not be signed off until the Unit 1 installation was complete. To avoid confusion, it was agreed with the RE that items completed for Unit 2 would be signed off with a note stating that the signature indicates completion of the Unit 2 scope only.

The 50.59 safety evaluation and Document Update Sheet (DUS) identified that changes to the AOPs are required. The DUS however identified that the procedure changes and training to the procedures are a closeout item. The 50.59 identified that a change to the Abnormal Operating Procedure is required to prevent spurious operation of equipment during an Appendix R fire scenario. The change to the AOP would provide direction to de-energize the new DC Control power supplies to the 2B03 bus. This appears to be an acceptance item rather than a closeout item. Discussion with the Operations group identified that the changes to the AOPs and associated training should be classified as an acceptance item for the modification. The DUS identified that AOP-0.0 and AOP-10A are impacted by the modification. Upon review of these procedures, AOP-0.0 was revised 10/18/96 to Rev 9 and incorporates changes associated with MR 96-022. AOP-10A has a Temporary Change against the current revision and includes changes



associated with MR 96-022. Per discussion with Operations Training, training to the AOPs has been conducted in Plant Status Update Training (LOR 96-06) under Lesson Plan 2500. Therefore, changes to the AOP and training are completed.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 47

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications:  
Modification 94-055 - add seismic supports to the raceway between risers 56 and 62 on 2C04 (Reactor and Primary Plant Control Board).

The cable tray was sagging due to weakening caused by a sidewall wireway being cut into the cable tray to allow the exit of some wiring. The addition of these supports restores the full integrity of the cable tray.

**Completion Timing:** This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### **Independent Review Results:**

The modification package (MR 94-055), Safety Evaluation screening, and WO Work Plan were reviewed. The safety evaluation screening matched the modification final design (both in scope and content). However, the installation design per Working Drawing SK-MR-99-055 details the use of 2" X 2" X 1/4" angle to reinforce the ceiling of the 2C04 panel and to distribute the weight of the support to the panel framing. This aspect of the design is not specifically discussed in the final design or Safety Evaluation screening. Since a SQUG walkdown review of the modification is performed, the additional weight of the angle iron and the additional hole drilled for the angle iron connection to the ceiling is considered by the SQUG reviewers.

Although the use of a Safety Evaluation screening is appropriate, the basis for the screening lacked substance regarding the impact of drilling holes in the Main Control Board ceiling and the method of supporting the weight of the wireway (i.e., screening did not address structural capacity, additional weight of support components, or the impact to the control board). In addition, information regarding the SQUG walkdown and the considerations reviewed as part of the walkdown would help support the basis of a screening review.

### **Status:**

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 48

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-068B - eliminate containment heating steam and condensate return containment isolation valves.

These were determined to be unnecessary to support plant operations. Removal eliminates a potential containment leakage path and reduces the need to conduct future Appendix J testing on these.

**Completion Timing:** This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### **Independent Review Results:**

The Document Update Sheet (DUS) identifies that Plant Status Update Training to MR 96-068\*B, procedure changes to ORT's and revision of Checklists are required to be completed as closeout items to the modification. Abandoning the Containment Heating Steam Supply system and changes to Operation procedures should warrant training as an acceptance item. This issue was discussed with Operations Training. Training was aware of the modification changes and had already conducted training to MR 96-068\*B in Plant Status Update Training 97-01 under Lesson Plan 2525. It was also identified that training included proposed changes to procedures and checklists affected by the modification.

### **Status:**

In progress.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 49

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance testing and return to service completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications:  
Modification 96-053 - replace an elbow in the west service water header.

A temporary, non-code repair was performed in July 1996 on the service water 6 inch elbow per temporary modification TM 96-014. There is an NRC commitment to perform the code repair prior to the exit from the next refueling outage. Further pipe inspections revealed a second elbow with wall thinning (no leak yet). Both elbows are normally unisolable from the west service water header.

**Completion Timing:** This should be in an accepted status prior to the Unit 2 core loading.

**Independent Review Results:**

The independent review has not yet been conducted.

**Status:**

In closeout verification (awaiting resolution of a CR involving FME in the Service Water System).



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 50

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications:  
Modification 95-070 - seismically upgrade the containment cooling fans and filters.

Completion Timing: This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### Criteria to Closeout This Item:

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 50).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
  - Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.



**Independent Review Results:**

No discrepancies yet noted.

**Status:**

This is awaiting PMT.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 51

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-026 - install, delete, and modify supports for feedwater, main steam, and SI system piping for the 79-14 project.

The piping and pipe supports for these systems have been evaluated for their ability to withstand design basis loads and stresses. Analysis shows that these piping systems are operable in their present configuration and prior to these modifications. However, various transients have been postulated that could result in stresses above code allowances, and these modifications will reduce these stresses to below code allowable.

**Completion Timing:** This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### **Independent Review Results:**

The modification package and safety evaluation were adequate. In the Installation Work Plan, Maintenance identified that verification of the spring hanger setting of support EB-1-MS-2H5 could not be performed since the load plate was missing. It was further indicated that the spring was reset by maintenance to the as found setting (prior to the mod). There was no reference to an engineering resolution of this issue in the IWP. Upon further investigation, the RE had requested direction for resolution of this issue with maintenance and the NDE group. The resolution requires that the location of the spring can indicator be physically measured to correlate this to the load setting. A concern exists that there is no guidance given to identify where the measurement needs to be taken from (i.e., to identify where the vendor's 0" setting is). In addition, the EB-1-MS-2H5 spring hanger is identified as a Grinnell, size 17, type D, figure 98 unit. The acceptable load range specified in the IWP (11,163# to 14,100#) exceeds the maximum load specified by the vendor (13,000#) for this particular spring hanger unit. The load range provided in the RE's response allowed the spring hanger to be set from 5 1/4" to 7". The 7" setting is the maximum total travel of the spring hanger. Engineering has been notified of the potential discrepancies associated with support EB-1-MS-2H5. Of particular concern is that the piping/support analysis uses the correct spring hanger data, the hanger is properly set, and seismic displacements are not a concern at the current setting.

The IWP also noted that the supports for valves 2-SI-878A and 2-SI-878C had to be cut and re-welded to facilitate removal. There does not appear to be any engineering acceptance of this change. In addition, the NDE step was not modified to require that the weld at the cut be inspected. Upon review of the NDE examination records (contained in the Work Order Package) for this IWP, the examination does not appear to include a review of the new weld made to the motor bracket support. The RE has been notified of this issue and should obtain engineering concurrence for the method of cutting and re-welding of this support and verify that an NDE visual weld inspection is performed to accept the new weld.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 52

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-058 - move Power Plant Computer System alarms to the exterior of C-20 panels. This will enhance the alarm sound levels.

Completion Timing: This should be in an accepted status prior to Unit 2 leaving cold shutdown.

Independent Review Results:

No discrepancies noted.

Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 53

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 94-095 - replace 8 Main Steam Condenser steam jump valves with improved design.

This will resolve a workaround issue, as the performance of these valves has not been satisfactory.

**Completion Timing:** The physical should be in an accepted status prior to Unit 2 leaving cold shutdown. The PMT will be completed after on-line.

### **Criteria to Closeout This Item:**

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 53).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
  - Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

No independent review yet conducted.

**Status:**

This is awaiting PMT, which involves acceptance testing with steam (need to complete PC-11, Part 3, which references OI-13). The PMT will be completed following reactor startup.

Additionally, the documentation associated with this modification has been lost, so needs to be reconstructed.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 54

**Commitment Description:** The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications:  
Modification 95-029 - replace SI accumulator level transmitters.

The purpose of this modification is to provide a more accurate and reliable level indication system for the SI accumulators. The current capacitance probe type level indicators are being replaced with Rosemount differential pressure transmitters.

**Completion Timing:** This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### **Criteria to Closeout This Item:**

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 54).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
  - Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.



### **Independent Review Results:**

Seven ECR's were generated in support of this modification. All ECR's except ECR #97-0001 have been approved. ECR #97-0001 needs to be approved as an acceptance item for modification testing. The ECR's have designated that they are QA scope. Based on NP 7.2.3, ECR's which indicate QA scoping require a technical review to be performed on the proposed change. None of these ECR's had a technical review documented. Per discussion with the RE, the ECR's were scoped QA based on the scoping of the modification. When the ECR's did not impact the QA scope, the RE would indicate this in the resolution section of the ECR. To comply with NP 7.2.3, Technical Reviews should be performed and documented in the Additional Review section of the ECR form for ECR's 96-0012, 96-0114, 96-0115, 96-0127, 97-0001, and 97-0011. As an alternative, the RE may want to re-review the ECR's to appropriately classify the scope as QA or Non-QA. Technical Reviews need to be performed for those ECR's which are classified as QA scope as an acceptance item for modification testing.

The Weld Checklists for Work Order 9606041 had indicated that the welds were outside the Section XI boundary and notification of the ISE Engineer was not required. Based on CR 96-1482, the welds were within Section XI scope and should have required ISE Engineer notification. The weld checklist were prepared prior to the initiation of the CR and it was not immediately clear if the workscope received the appropriate Section XI reviews. An ISE Engineer was interviewed to discuss and review the MR 95-029 work packages. The ISE Engineer verified that the appropriate RRM forms/review sheets were completed to address the ISI requirements and reviews. The ISE Engineer was satisfied that the ISI program was appropriately implemented. No further action is required on this issue for Unit 2 restart.

### **Status:**

This is awaiting completion of PMT. The remaining testing includes a leak test and functional testing, both of which cannot be done until the SI accumulators are restored, which is presently scheduled for after the Integrated Leak Rate Test (ILRT).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 55

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications:  
Modification 95-035 - modify Containment Spray additive tank controller circuit.

Completion Timing: This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### Independent Review Results:

Although the use of a Safety Evaluation screening is appropriate, the basis for the screening lacked substance regarding the impact of the wiring change (i.e., screening did not discuss why the wiring change would not affect the valve position, the safety significance of the output indication, or what the impact of going from a parallel circuit to a series circuit has on the controller). Restart Commitment Item # 17 will review Safety Evaluation screenings performed in 1996 to identify and resolve weaknesses and inconsistent trends generic to the screenings. No action is required under commitment item #55 to resolve this issue. In addition, the write-up discussion in Section D incorrectly referenced the valve as 2SI-8831A instead of 2SI-831A. The RE has been notified of the errant valve number in order to make a pen and ink change.

During stroke testing of the 2SI-836A and 2SI-836B valves, the Ops Engineering noted in step 4.2.7 of the IWP that when the valve controller was in manual mode and then placed in the normal position and closed, the valve closed and then bounced partially open (20% and 30%). The test was repeated in the automatic mode and performed satisfactorily. I & C investigated the manual test and noted that a capacitor discharge while it was turned off was the cause. The IWP did not indicate that a successful manual test was achieved. This IWP step was discussed with the Operations Coordinator. It was a concern that the condition which caused the valve to bounce to a semi-open position did not have a corrective fix or explanation as to why this was acceptable. Operations and I & C departments have been notified of the concern with this issue. Resolution of this issue needs to be completed for Unit 2 restart. The Operations and I & C departments need to resolve the concern regarding the manual stroke test of valve 2SI-836A and 2SI-836B prior to Unit 2 exiting Cold Shutdown.

Status:

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 56

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-063 - replace 345 kv breakers (3-4, 4-5, and 142).

During extremely cold winter conditions, these switchyard breakers experienced air loss, making them difficult to operate. This replacement will ensure their operability during these conditions.

Completion Timing: The physical work associated with this modification should be completed prior to criticality. To conduct the PMT (which involves relaying checks), the unit must be on-line.

### Criteria to Closeout This Item:

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 56).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
  - Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

The modification package (MR 96-063), 50.59 Safety Evaluations, and Installation Work Plan 96-063-01 were reviewed. The modification Final Design Documentation was incomplete and did not identify specific acceptance items in the Document Update Sheet (DUS). The incomplete DUS identifies that pen & ink changes to the Control Room Drawings and Master Data Book changes are required as acceptance items. The RE could not specifically identify which documents will require changes but has indicated that they will be identified in the near future. Therefore, changes to these documents could not be verified. The RE needs to complete the Control Room drawings and Master Data Book updates as an acceptance item to MR 96-063.

The Site Engineer following the installation/testing of the modification, has signed off IWP 96-063-01 identifying that the items needed for final acceptance are complete. The acceptance items identified in the IWP are revision to procedure PC-21 and ARB C02 E-4-8. The revised procedures have been verified to be issued in the controlled manuals. Additional acceptance items may be required for final acceptance based on the completion of the DUS by the RE. The Site Engineer has been informed that additional acceptance items may be required prior to DSS sign off and the IWP package should be held back. A Condition Report should be initiated to identify and track this concern.

A 50.59 safety evaluation was performed to evaluate the replacement of the Unit 2 Generator breaker (2F52-142) and addition of test switches. An additional Safety Evaluation screening was performed to evaluate the testing of the breakers and circuits. The Safety Evaluation/screening matched the Modification description and Installation Work Plan in content. Additional scope (installation of breaker and test switch wiring changes) was included in the Safety Evaluation for completeness and convenience. As previously identified, the installation of the breakers was performed by a separate business unit of Wisconsin Electric, but has direct impact on plant operation. Changes to the Control Room test switch wiring was performed by WE under a separate installation document unrelated to MR 96-063. This separate scope appears to have been performed under a WO Work Plan. IWP 96-063-01 relies on the test switches being installed in order to test the breakers. Review of the Work Plan for the test switch installation needs to be completed to assure that any acceptance items (SQUG review of panel, Control Room drawing updates, etc.) associated with the installation have been completed.

### **Status:**

The physical work is completed, and the modification is awaiting PMT. To conduct the PMT (which involves relaying checks with the generator breaker closed and energized), the unit must be on-line. A procedure update to PC-21 must also be made to allow acceptance of this modification.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 57

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 96-069 - replace four breakers (1Y-06-01, 1Y-06-03, 1Y-06-05, and 1Y-06-11) associated with instrument bus 1Y-06.

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

Completion Timing: This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### Independent Review Results:

The Safety Evaluation (SER 97-032) had pen and ink changes made to change the word "shutdown" to "hot or cold shutdown" condition. This change was not made consistently in the 50.59 evaluation. The response for Question 2 & Question 6 did not have the pen and ink changes made consistent with the other question responses. The Technical Specifications define Hot Shutdown based on  $T_{ave} > 540F$  and Cold Shutdown based on  $T_{ave} < 200F$ . Based on the Station Log, this modification was installed during a phase between hot and cold shutdown when  $T_{ave}$  was approximately 345F. The Work Plan initial conditions required the Reactor to be offline. The Unit 1 condition and installation activities were discussed with the on-site RE and Operations. It was noted by both the RE and Operations that installation could be performed during any condition while the Reactor was shutdown. The Safety Evaluation discussion of the Unit 1 Plant condition, by definition, does not match the condition in which the installation was performed or that which was required by the Work Plan. However, this does not represent a safety issue and will not impact Unit 2 restart. The on-site RE was made aware of this issue and was asked to take the necessary action to resolve the conflict. It was recommended that the RE discuss this issue with the MSS which approved the 50.59 to assure the intent of the pen and ink change was not made to avoid installation during the transition from hot to cold shutdown. In addition, it was suggested that the 50.59 evaluation be revised to identify the installation condition as reactor shutdown.

Verification of pen and ink changes to the Control Room/WCC documents was performed. The Document Update Sheet (DUS) identified that the only acceptance item

for MR 96-069\*A was pen and ink changes to the MDB 3.2.11 for the 1Y06 panels. These changes have not been made to the MDB in either the WCC or Control Room. These changes should have been made prior to the modification being accepted by the DSS and returned to service. The RE has been notified of this issue and needs to complete the pen and ink changes prior to Unit 2 restart.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 58

Commitment Description: The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 95-058\*O - repair Steam Generator intermediate leg supports. These were found degraded, and this issue may be resolved through analysis.

Completion Timing: This should be in an accepted status prior to the Unit 2 approach to criticality.

### Criteria to Closeout This Item:

1. The modification is in an accepted status.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the completed Installation Work Package.
  - A summary of the significant items/issues identified during conduct of the modification and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 58).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the copy of the Installation Work Package page.
  - Significant items/issues identified during conduct of the modification are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### Independent Review Results:

No discrepancies yet noted.



**Status:**

This is awaiting PMT (hot gap measurements), which will occur when the unit is heated-up and prior to criticality.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 59

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

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

**Completion Timing:** This should be in an accepted status prior to Unit 2 leaving cold shutdown.

### **Independent Review Results:**

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

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

### **Status:**

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 60

Commitment Description: The work and testing associated with these work orders will be completed prior to the associated component/system being declared operable: Work Orders 9601506, 9602502, 9603921, 9611267, 9611278, and 9611755 - replace proximity switches and targets with an improved design and overhaul the Fuel Transfer Cart to enhance control system operation.

The original equipment manufacturer had provided switches not designed for underwater service, causing a history of recurring failures. This will resolve a workaround issue.

Completion Timing: This should be completed prior to the Unit 2 core loading.

Independent Review Results:

It should be noted that WO 9603921 and WO 9611278 both perform work on the idler sprocket. It appears that there could have been repeat or related maintenance performed on the idler sprocket which may not have been evaluated for lessons learned.

Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 61

**Commitment Description:** The work and testing associated with these work orders will be completed prior to the associated component/system being declared operable: Work Orders 9613568 and 9613569 - provide bonnet pressure locking relief for the SI-857A and SI-857B valves (interface valves between RHR and High Head SI) on Unit 2. These are critical, manually operated valves.

**Completion Timing:** This should be completed prior to the Unit 2 core loading.

**Criteria to Closeout This Item:**

1. Completion of the work associated with the listed work orders.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work orders.
  - A summary of the significant items/issues identified during conduct of the work orders and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #61).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work orders.
  - Significant items/issues identified during conduct of the work orders are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

Reviewed Design Input Checklist. For C.1.b, the design pressure is specified as 300 psig. This should be 700 psig. This was noted to the RE and corrected. The hydrostatic and

inservice leak test data sheets correctly show the 700 psig design pressure and 875 psig hydro pressure. Also, the F.2 p/r/s items should be F.1.p/r/s. These items are editorial.

Two Engineering Change Requests (ECRs), 97-0006 and 97-0010 were generated in support of this modification. Both of these ECRs represented minor changes to the design (alternate tube union type and alternate Girard clamp mounting) and did not impact the scope of this modification. Both of these ECRs were originally QA-scope, but were changed to Non-QA scope. The QA-scope designation is more appropriate. ECR 97-0010 gives alternate tube unions that can be used. Both the original and alternate unions are QA-scope. ECR 97-0006 provides alternate attachment methods for Girard clamps. If these ECRs are QA-scope, a technical review will be required.

**Status:**

The physical work has been satisfactorily completed, and PMT (IT-45) is scheduled to occur prior to core loading.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 62

**Commitment Description:** The work and testing associated with this work order will be completed prior to the associated component/system being declared operable: Work Order 9611757 - correct the leakage which leads to boric acid buildup in the cylinder blocks of "B" Charging Pump.

This is a housekeeping issue, not an operability issue. Resolution will bring this into compliance with Maintenance Department housekeeping standards.

**Completion Timing:** The physical work will be completed prior to Unit 2 leaving cold shutdown. PMT requires that the pump be run prior to turbine roll-up.

### **Criteria to Closeout This Item:**

1. Completion of the work associated with the listed work order.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work order.
  - A summary of the significant items/issues identified during conduct of the work order and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #62).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work order.
  - Significant items/issues identified during conduct of the work order are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

No discrepancies yet noted.



Status:

The physical work associated with this work order has been completed, and it is awaiting PMT (run the pump prior to turbine roll-up).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 63

**Commitment Description:** The work and testing associated with this work order will be completed prior to the associated component/system being declared operable: Work Order 9603532 - repair the handswitch for 2P-2A, the "A" Charging Pump.

This handswitch has a history of not operating smoothly, and this was addressed in the past through the use of lubricants. A change in maintenance philosophy prompted the replacement of this component.

**Completion Timing:** The physical work should be completed prior to Unit 2 leaving cold shutdown. The PMT will be completed prior to criticality.

### **Criteria to Closeout This Item:**

1. Completion of the work associated with the listed work order.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work order.
  - A summary of the significant items/issues identified during conduct of the work order and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #63).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work order.
  - Significant items/issues identified during conduct of the work order are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

The Work Order's functional test is noted on the Return to Service Testing Reviews form, but not in the work plan. The test should be added to the Work Plan to ensure it is performed. The Work Order process should update the Work Plan when testing specified in the Return to Service Testing Reviews form is not already included in the Work Plan. The Work Order process should be evaluated to ensure testing identified in the Return to Service Testing Reviews form is covered appropriately in the Work Plan.

**Status:**

The physical work is complete, and the work order is awaiting PMT (running the pump during OP-4A).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 64

**Commitment Description:** The work and testing associated with these work orders will be completed prior to the associated component/system being declared operable: Work Orders 9611624 through 9611626 - replace existing pneumatic turbine generator circuitry time delay relays with plug-in, electronic time delay relays.

The ease of calibration and cycle drift will be improved through this change.

**Completion Timing:** The physical work should be completed prior to Unit 2 leaving cold shutdown. The PMT will be completed while on-line.

### **Criteria to Closeout This Item:**

1. Completion of the work associated with the listed work orders.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work orders.
  - A summary of the significant items/issues identified during conduct of the work orders and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #64).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work orders.
  - Significant items/issues identified during conduct of the work orders are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

The independent review has not yet been conducted.

Status:

The work plans have been prepared, and the work order is scheduled.

## Point Beach Nuclear Plant: Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 65

Commitment Description: The work and testing associated with this work order will be completed prior to the associated component/system being declared operable: Work Order 9606626 - reinstall switches on the Unit 2 Containment hatch third door to allow monitoring of door status.

There have been recurring human performance errors associated with this door, as people would block it open during refueling operations to transfer equipment. To ensure the operability of this door, switches are being installed to allow remote monitoring of its status.

Completion Timing: This should be completed prior to the Unit 2 core loading.

Independent Review Results:

No discrepancies noted.

Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 66

Commitment Description: The work and testing associated with this work order will be completed prior to the associated component/system being declared operable: Work Order 9611052 - replace the 2P-10B handswitch, the "B" RHR Pump control switch.

This handswitch has a history of not operating smoothly, and this was addressed in the past through the use of lubricants. A change in maintenance philosophy prompted the replacement of this component.

Completion Timing: This should be completed prior to the Unit 2 core loading.

Independent Review Results:

One item in the Work Order has not been resolved: to initiate the Drawing Change Notice (DCN) for conflict between schematic (499B466, Sheet 337) and wiring diagram (E-1591E-B) for contacts C6-C7 and D6-D7 (NUTRK U2R22 RESTART Action #89).

Status:

Verified closed. The associated documentation was provided to the NRC.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 67

Commitment Description: The work and testing associated with these work orders will be completed prior to the associated component/system being declared operable: Work Orders 9611198 and 9611199 - repair the body-to-bonnet boric acid leak on CV-307 B (lowside tap for "B" RCP #1 seal d/p) and CV-308B (lap seal d/p for "B" RCP).

This is a housekeeping issue, not an operability issue. Resolution will bring this into compliance with Maintenance Department housekeeping standards.

Completion Timing: This should be completed prior to the Unit 2 approach to criticality.

### Criteria to Closeout This Item:

1. Completion of the work associated with the listed work orders.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work orders.
  - A summary of the significant items/issues identified during conduct of the work order and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #67).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work orders.
  - Significant items/issues identified during conduct of the work orders are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### Independent Review Results:

No discrepancies yet noted.

**Status:**

The physical work is complete, and the work order is awaiting PMT (a visual leak check to atmosphere during the conduct of IT-235).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 68

**Commitment Description:** Repair valve AR-3511 per Work Order 9513340. The Unit 2 priming air ejector is blank flanged due to air in-leakage through the condenser air removal isolation valve, AR-3511. This resolves a workaround issue.

**Completion Timing:** The physical work should be completed prior to the Unit 2 approach to criticality. The PMT will be completed prior to being on-line.

**Criteria to Closeout This Item:**

1. Completion of the work associated with the listed work order.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work order.
  - A summary of the significant items/issues identified during conduct of the work order and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #68).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work order.
  - Significant items/issues identified during conduct of the work order are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

In step 2 of the Work Plan, the Lot Number for the flange gasket does not match the storeroom requisition forms.

**Status:**

The physical work associated with this work order is complete, and it is awaiting PMT (a general leak test during the conduct of OP-13A).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 69

Commitment Description: Repair the drain valve for the heating steam moisture separator per Work Order 9613451.

The Unit 2 heating steam moisture separator level has been difficult to maintain during normal operations. Frequent Main Control Board alarms have been received due to low level, countering the station's attempt to maintain a black board policy. This will be tested following Unit 2 startup.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown.

Criteria to Closeout This Item:

1. Completion of the work associated with the listed work order.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work order.
  - A summary of the significant items/issues identified during conduct of the work order and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #69).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work order.
  - Significant items/issues identified during conduct of the work order are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

The independent review has not yet been conducted.

**Status:**

The physical work associated with this work order is scheduled.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 70

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

The tank overflows because the installed automatic level control system is not effective, and there is no high-high level alarm for the tank. This has been a recurring human performance issue exasperated by design. This modification will minimize the human performance challenges.

Completion Timing: This should be in an accepted status prior to the Unit 2 approach to criticality.

Independent Review Results:

No discrepancies noted.

Status:

Verified closed. The associated documentation was provided to the NRC.





## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 71

**Commitment Description:** Repair MS-249, the Unit 2 steam line sample valve, per Work Order 9603128.

This valve had a packing leak, which required steam header sampling to be shifted to the B steam header. This repair will restore the ability to sample normally and resolves a workaround issue.

**Completion Timing:** The physical work should be completed prior to the Unit 2 approach to criticality. The PMT will be completed prior to being on-line.

### **Criteria to Closeout This Item:**

1. Completion of the work associated with the listed work order.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work order.
  - A summary of the significant items/issues identified during conduct of the work order and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #71).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work order.
  - Significant items/issues identified during conduct of the work order are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

No discrepancies yet noted.

**Status:**

The physical work is complete, and the work order is awaiting PMT (general leak test during OP-13A).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 72

**Commitment Description:** Repair alarm switch 2LS-2511 per Work Order 9605711. The Unit 2 D MSR level was being maintained low in the band due to level oscillations and a steam leak from the alarm switch.

**Completion Timing:** The physical work should be completed prior to Unit 2 leaving cold shutdown. PMT needs to be conducted at power.

**Criteria to Closeout This Item:**

1. Completion of the work associated with the listed work order.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work order.
  - A summary of the significant items/issues identified during conduct of the work order and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #72).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work order.
  - Significant items/issues identified during conduct of the work order are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

The Work Order has been installed, and return to service testing has been performed, except the leak check and verification of level indication. 2LS-2511 is the high level alarm switch for 2HX-22D MSR. It appears that the testing specified in the Work Plan (verification of level indication) was intended for a level gauge, not a level switch. The

testing specified is not adequate. The testing and acceptance criteria for the functional testing of the level switch need to be expanded.

**Status:**

The physical work is complete, and the work order is awaiting PMT (leak test at power).

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 73

**Commitment Description:** Repair 2P116, the Unit 2 Boric Acid Recirculation Pump, per Work Order 9603130.

There have been recurrent, significant seal leaks due to the pump's design and application. This work order replaces the current pump with a seal-less pump.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown.

**Criteria to Closeout This Item:**

1. Completion of the work associated with the listed work order.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the closed work order.
  - A summary of the significant items/issues identified during conduct of the work order and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action #73).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documentation which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Duty Shift Supervisor's signature and date is on the "Equipment Return to Service" section on page 2 of the associated work order.
  - Significant items/issues identified during conduct of the work order are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

The independent review has not yet been conducted.

**Status:**

The physical work is scheduled.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 74

**Commitment Description:** 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.

This simulator training will consist of :

- Bringing the turbine on-line (from no load on the turning gear to about 15% power).
- Reviewing the differences in steam generator response between Units 1 and 2.
- Conducting normal trips and identifying the differences in response between Units 1 and 2.
- Addressing instrument failure response differences between Units 1 and 2.
- Conducting casualty response dynamic scenarios.

**Completion Timing:** This will be completed prior to the Unit 2 approach to criticality.

### **Independent Review Results:**

During this simulator session, the following observations were discussed which may warrant further discussion and follow-up action by the Operations staff.

During the turbine roll and generator on line exercise, there were only two operators on the console and three really active stations. One operator was in charge of the turbine and steam generator water level control (SGWL) while the other operator was in control of the reactor. During this critical evolution, it would seem more appropriate to have these stations split among three operators to minimize the distractions and provide more focused attention to these critical stations. Discussions with the Operations Manager, who was also observing this training, indicated that real plant start ups do involve extra operators on the control board who are brought out on overtime.

The operator controlling the turbine and SGWL had to turn his back to the control board to find adequate level trends that would support his needs in controlling S/G water level. The CRT which had these trends available on the vertical control board facing the operator had degraded to the point that it was too difficult to read. From discussions, the trending CRT in the vertical panel in the actual control room does provide adequate indication. While the operator appeared to handle the added burden of operating both stations (turbine and SGWL) and working around the degraded indications of vital parameters, there is some concern for the impact of training in a manner that is not



consistent with the manning and equipment status that exists in the actual control room. It is noted that subsequent to this observation, this reviewer became aware of Enforcement Conference Commitment Item No. 21. This commitment requires consideration for improvements to the Control Operator's Work Station that would permit the operators to face the main control boards and have optimum access to the controls.

While there are observations noted on the need to keep the operator positioned to control the plant and to maintain the fidelity between the simulator training and the actual practices in the Control Room, these observations are for consideration by the PBNP staff and should not hinder satisfactory completion of this commitment.

**Status:**

Verified closed. The associated documentation was provided to the NRC.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 75

**Commitment Description:** Revise the initial and requalification operator training plans to include a review of the administrative procedures identified as significant to daily operation of the plant during each two year operations training plan.

This commitment is also Enforcement Conference Commitment Item # 20.

**Completion Timing:** This should be completed prior to the Unit 2 approach to criticality.

**Independent Review Results:**

A list of administrative procedures that are significant to daily plant operation has not yet been identified.

The commitment as presently written does not appear to be satisfied by what is documented in the file. The recommended action is to either complete the commitment as written, or revise Restart Commitment No. 75, to reflect that action has commenced to achieve closure and that full compliance will be achieved by a reasonable future date.

**Status:**

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 76

Commitment Description: Conduct roundtable discussions with all MSS\SS\DTA personnel regarding conservative decisionmaking, Technical Specification interpretations, and lessons learned from recent regulatory communications and perspectives. Review outlier Technical Specification interpretations for interim applications.

Completion Timing: This should be completed prior to the Unit 2 fuel loading.

Independent Review Results:

No discrepancies noted.

Status:

Verified closed. The associated documentation was provided to the NRC.



## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 77

**Commitment Description:** Complete the procedure changes and training associated with the new Technical Specification on ECCS regarding the new Containment Integrity Analysis.

This involves the implementation of Technical Specification Change Request 192.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown.

**Criteria to Closeout This Item:**

1. Completion of the procedure changes and training defined in the "Commitment Description" section.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A copy of the revised procedures.
  - A summary/document describing what was covered in the training (report using the NUTRK system - NUTRK U2R22 RESTART Action # 77).
  - Copies of the attendance sheets for the training.
  - Significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 77).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

No discrepancies yet noted.

**Status:**

This is in progress. Training and procedure work have commenced. Further training (as needed) will be conducted when the final content of the Technical Specification Change is known and the procedure changes have been finalized.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 78

**Commitment Description:** Communicate specific expectations regarding AFW and EDG status control to Operators.

When the P-29 TDAFP should be declared operable has caused confusion, since the ability to FULLY test it for flow is not available until after reactor criticality. That delay in achieving a full flow test has been a confusing point. The Technical Specifications and procedures are inadequate.

The AFW status control issue involves AFW pumps tripping on overcurrent when the EDG's are lightly loaded and in an overfrequency condition.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown.

### **Criteria to Closeout This Item:**

1. Completion of the communication of specific expectations defined in the "Commitment Description" section.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A summary/document describing what was covered in the communications (report using the NUTRK system - NUTRK U2R22 RESTART Action # 78).
  - Significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 78).
3. The Restart Issues Coordinator has:
  - Verified that the Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Verified that the significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
  - Determined that all Operators were informed of these expectations.



4. Completion of an independent verification.

**Independent Review Results:**

An "Operations Notebook" memo was issued on 2/11/97 by the Responsible Person for this restart commitment. The subject of this memo is "Motor Driven Aux Feed Pump flow control" and there is a sign off documentation requirement for those required to read this memo. The content of the memo discusses required training on SOER 96-01, "Control Room Supervision, Operational Decision-Making, and Teamwork", in cycle 97-1. It also discusses AFW throttling requirements to prevent AFW pump trip from overcurrent. The commitment to communicate specific expectations regarding when and how to declare the Steam Driven Auxiliary Feedwater Pump (P-29) operable does not appear to be addressed in this memo.

It is not clear why the condition of the motor driven pump tripping is not a degraded design condition outside the conditions assumed in the PBNP Safety Analysis and Licensing Basis, specifically the NRC Safety Evaluation Report's that reviewed the PBNP responses to NUREG -0737 II.E.1.1 and II.E.1.2 requirements. If this is indeed a degraded design condition, then the Technical Specification Limiting Conditions for Operation for the Auxiliary Feedwater Pumps are adversely impacted and need to be promptly addressed. Previous safety evaluations (SER 96-023 and SER 96-028) and an Operability Determination 96-264 do not adequately address this potential degraded design against the PBNP's Licensing Basis.

Additionally, the memo discusses the need to throttle flow to 150 gpm or less when the recirc valves are open. This instruction, which is being incorporated into procedures, does not address core cooling requirements and appears to require throttling below that which may be needed in some scenarios. The FSAR indicates this system (the motor driven AFW supply) has a capacity of 400 gpm. This operating instruction would limit this capacity to 350 gpm under some conditions. The core safety implications and this reduced capacity from that assumed in the FSAR need to be addressed by a thorough 50.59 Safety Evaluation.

**Status:** This is in progress.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

Commitment ID#: 79

Commitment Description: Restore a proceduralized capability to operate the Containment Spray Pumps in the recirculation mode of the ECCS. This will be included procedurally in the EOP package.

Completion Timing: This should be completed prior to Unit 2 leaving cold shutdown.

Criteria to Closeout This Item:

1. Completion of the task defined in the "Commitment Description" section.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - A summary addressing when the actions described in the "Commitments Description" section were completed and what specifically was done to accomplish the task (report using the NUTRK system - NUTRK U2R22 RESTART Action # 79).
  - Documents initiated or changed as a result of this task. The identification number for each of these must be included in this summary, and a copy sent to the Restart Issues Coordinator for inclusion in the Restart Issues File.
  - Significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 79).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

No discrepancies yet noted.

**Status:**

This is in progress.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 80

**Commitment Description:** Obtain amendments requested by Change Requests 188 and 189 related to Steam Generator replacement; 192 related to Service Water operability; and 194 related to Low Temperature Overpressurization limits. This will include resolution of issues related to Control Room and offsite dose evaluations for the analyzed events.

**Completion Timing:** This should be completed prior to Unit 2 leaving cold shutdown.

### **Criteria to Closeout This Item:**

1. Completion of the task defined in the "Commitment Description" section.
2. The Responsible Person has forwarded the following documentation to the Restart Issues Coordinator:
  - When the actions described in the "Commitments Description" section were completed (report using the NUTRK system - NUTRK U2R22 RESTART Action # 80).
  - A copy of the amendments.
  - Significant items/issues identified during conduct of this task and how they were resolved (can simply reference Condition Report numbers or other tracking mechanisms) OR a statement that there were none identified (report using the NUTRK system - NUTRK U2R22 RESTART Action # 80).
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

### **Independent Review Results:**

No discrepancies yet noted.

**Status:**

This is in progress.

- Technical Specification Change Request 194 was approved by the NRC on February 20, 1997 and has been implemented as Amendment Number 172 (Unit 1) and Amendment Number 176 (Unit 2).
- LOCA dose calculations to support Technical Specification Change Requests 188, 189, and 192 have been provided to the NRC.
- A team has been formed to address control room ventilation dose concerns with the Operators. A meeting was held on April 28, 1997 with the NRC to address the control room habitability issue, which may become a critical path issue for the outage.

## Point Beach Nuclear Plant Unit 2 Restart Commitment Summary (May 16, 1997)

**Commitment ID#:** 81

**Commitment Description:** Submit the following requests for license amendments resulting from the review of existing Technical Specification interpretations:

- Revise the maximum acceptable power level when crossover steam dumps are inoperable (TS 15.3.4.E).
- Revise requirements for offsite power lines availability to address adequacy (TS 15.3.7.A.1.a).
- Remove allowances in TS 15.3.1.A.1.a for single reactor coolant pump operation.
- Appropriately modify the minimum required boron concentration in the Refueling Water Storage Tanks.

**Completion Timing:** This should be completed prior to the Unit 2 approach to criticality.

**Criteria to Closeout This Item:**

1. Completion of the task defined in the "Commitment Description" section.
2. The Responsible Person has forwarded to the Restart Issues Coordinator a copy of the requests for the license amendments.
3. The Restart Issues Coordinator has verified that the:
  - Restart Issues File includes the documents which the Responsible Person is required to forward to the Restart Issues Coordinator (see immediately above).
  - Significant items/issues identified during conduct of the review are being tracked in a tracking system which is being reviewed per Restart Commitment #22.
4. Completion of an independent verification.

**Independent Review Results:**

No discrepancies yet noted.

Status:

This is in progress. Change requests have been submitted to the NRC which address crossover steam dump/turbine overspeed, eliminating provisions for single RCP operation while critical, and RWST boron concentration.

The offsite power availability change is being addressed as follows: DCS 3.1.20 is being changed, as it is currently non-conservative (in that it would allow full power operation of a unit with only one offsite power line to that unit). This is in conflict with the Technical Specification bases. Once this non-conservatism is changed, there will be no need for a Technical Specification change