

NRC  
9-281

Point Beach Nuclear Plant  
**PBNP SHUTDOWN SAFETY ASSESSMENT AND FIRE CONDITION CHECKLIST**

Date: May 26, 2004 Time: 0200 Preparer: T. R. Branam U 1 R 28

**NOTE:** Refer to base procedure NP 10.3.6 for safety assessment checklist KSF definitions.

**NOTE:** Whenever fuel has been removed from the reactor vessel and refueling cavity, all key safety functions are **GREEN** except spent fuel pool cooling.

**KEY SAFETY FUNCTION CRITERIA:** No/False = 0, Yes/True = 1 through 4

REACTIVITY				Subtotal	Condition
1.	RCS Boron concentration = 3015 ppm				
a.)	For RSD, RCS boron > Refueling boron concentration specified in unit-specific COLR (TRM 2.1) > 2200 ppm				
b.)	For CSD and prior to RSD no fuel motion, RCS boron > boron concentration required by OP 3C	(0-1)	<u>1</u>	0-1	RED
2.	Number of boration paths	(0-2)	<u>2</u>	2	ORANGE
3.	No fuel motion	(0-1)	<u>1</u>	3-4	YELLOW
4.	SR instrumentation operable	(0-1)	<u>1</u>	5	<b>GREEN</b>
Subtotal =				<u>5</u>	

CORE COOLING				Subtotal	Condition
1.	Number of SG available for DHR	(0-2)	<u>0</u>	0-1	RED
2.	Refueling cavity filled	(0-1)	<u>0</u>	2	ORANGE
3.	Number of trains RHR available	(0-2)	<u>2</u>	3	<b>YELLOW</b>
4.	RCS level above REDUCED INVENTORY	(0-1)	<u>1</u>	4-5	GREEN
RCS Temperature = 94°F; 53 days shutdown					
RCS Level > 55 %				Subtotal =	<u>3</u>
RCS Time to Boil <u>106 min.</u> (Applicable at Cold or Refueling Shutdown)					

POWER AVAILABILITY				Subtotal	Condition
1.	Independent off-site power sources available to A-05 and A-06 (totally independent at the 4160 V, 13.8 kV, and 345 kV levels)			1	RED
				2	ORANGE
				3	YELLOW
		(0-2)	<u>2</u>	4-5	<b>GREEN</b>
2.	G-01 or G-02/A-05/B-03 available	(0-1)	<u>1</u>		
	G-03 or G-04/A-06/B-04 available	(0-1)	<u>1</u>		
3.	G-05 available, Reactor Cavity filled to ≥ 23 ft above the top of the reactor vessel flange, upper internals removed and RCS time to boil ≥ 12 hours.	(0-1)	<u>0</u>		
Subtotal =				<u>4</u>	

INVENTORY				Subtotal	Condition
1.	Pressurizer level ≥ 20 percent w/head on	(0-1)	<u>0</u>	0-1	RED
2.	Refueling Cavity filled (see definition)	(0-3)	<u>0</u>	2	ORANGE
3.	RCS level above REDUCED INVENTORY	(0-1)	<u>1</u>	3	<b>YELLOW</b>
4.	Makeup from VCT/BLENDER and/or RWST available	(0-2)	<u>2</u>	4	GREEN
Subtotal =				<u>3</u>	

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in accordance with the Freedom of Information  
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✓-27

Point Beach Nuclear Plant  
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CONTAINMENT				Subtotal	Condition
1.	Containment integrity (TS 15.1.D) {Containment Operable} {ITS TS 3.6.1} set	(0 or 4)	<u>0</u>	0	RED
2.	Containment Closure CL-1E maintained and closure < time to boil	(0 or 2)	<u>2</u>	1	ORANGE
3.	No fuel motion	(0-1)	<u>1</u>	2-3	<del>YELLOW</del>
4.	DHR Capability:			4-5-6	<b>GREEN</b>
	- cavity flooded and internals out				
	<u>OR</u>				
	- at least one SG available				
	<u>OR</u>				
	- one fan cooler with Equip hatch installed and personnel hatches capable of being shut	(0-1)	<u>1</u>		
Subtotal =				<u>4</u>	

**SPENT FUEL POOL COOLING**  
(ONLY APPLICABLE when starting AND during FULL CORE OFFLOADS)

**NOTE:** Take credit for only one P-12 independent offsite power source during periods of single X-03 or X-04 availability (\*).

		Subtotal	Condition
1.	"A" SFP cooling pump available with power available from:	0-1	RED
	- G-02 or G-01 via 2B-32	2	ORANGE
	-(*) an independent off-site power source different than that for Train B below	3	YELLOW
		4-5	GREEN
	(0-1) <u>NA</u>		
2.	"B" SFP cooling pump available with power available from:		
	- G-03 or G-04 via 1B-42	(0-1) <u>NA</u>	
	-(*) an independent off-site power source different than that for Train A above	(0-1) <u>NA</u>	
3.	Temporary power available to one SFP cooling pump, G-05 available, and SFP time to boil ≥ 12 hours.	(0-1) <u>NA</u>	

SFP Temperatures: Subtotal = NA  
NW NA °F  
SE NA °F  
SFP Average Temp NA °F  
SFP Time to Boil NA

**GIVE A BRIEF EXPLANATION OF ANY CHANGE IN SAFETY ASSESSMENT THAT TOOK PLACE:**

- Core Cooling to YELLOW due to RCS level > 55 %
- Inventory to YELLOW due to RCS level > 55 %
- Changed Inventory path from Blender to "A" Train of SI due to need to recirc "A" BAST.
- TTB is 106 min – calculated from SEP-1 with vessel level at ¾ pipe, 94°F, 53 days post shutdown, and the 1.3 multiplier for being refueled. Note that TTB curve based on 50 days post shutdown was conservatively used (CAP056964).

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**OUTAGE SAFETY ASSESSMENT**

UNIT: 1

DATE: May 26, 2004

TIME: 0200

**KEY SAFETY FUNCTIONS:**

REACTIVITY:	GREEN
CORE COOLING:	YELLOW
POWER AVAILABLE:	GREEN
INVENTORY:	YELLOW
CONTAINMENT:	GREEN
SFP COOLING:	NA

**PROTECTED EQUIPMENT:**

**COMMENTS:**

- RCS Time to Boil is 106 minutes.
- Fire Protection Condition III: Credit is taken for fire rounds as fire prevention contingency.

EX-4