#### Point Beach Nuclear Plant

# PBNP SHUTDOWN SAFETY ASSESSMENT AND FIRE CONDITION CHECKLIST

1. RCS Boron concentration = 3017 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) 1 0-1 RED 2. Number of boration paths (0-2) 2 2 2 ORANGE 3. No fuel motion (0-1) 1 3-4 VELLOW 4. SR instrumentation operable (0-1) 1 5 GREEN  Cavity Boron concentration = 3003 ppm  Subtotal = 5  CORE COOLING 1. Number of SG available for DHR (0-2) 0 0-1 RED 2. Refueling cavity filled (0-1) 1 2 ORANGE 3. Number of trains RHR available (0-2) 2 3 VELLOW 4. RCS level above REDUCED INVENTORY (0-1) 1 4-5 GREEN  RCS TEMP =81°F; 34 days shutdown, Subtotal = 4 RCS Level = Refueling Height RCS Time to Boil 35 hrs (Applicable at Cold or Refueling Shutdown)	: _	May 7, 2004 Time: 0200 Prepare	er: James H. Hanr	<u>1a</u>	1 R
REACTIVITY   Subtotal   Condition	NOTE	Refer to base procedure NP 10.3.6 for safety	assessment checklist KSF a	definitions.	
REACTIVITY   Subtotal   Condition	NOTE	: Whenever fuel has been removed from the re	eactor vessel <u>and</u> refueling (	cavity, all key safe	ety functions are
REACTIVITY   Subtotal   Condition		GREEN except spent fuel pool cooling.			
a.) For RSD, RCS boron >Refueling boron concentration specified in unit-specific COLR (TRM 2.1) > 1200 ppm b.) For CSD and prior to RSD no fuel motion, RCS boron > boron concentration required by OP 3C  2. Number of boration paths	KEY S	SAFETY FUNCTION CRITERIA: No/False = 0,	Yes/True = 1 through 4		
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 2. Number of boration paths 3. No fuel motion 4. SR instrumentation operable 4. SR instrumentation operable Cavity Boron concentration = 3003 ppm  Subtotal = 5  CORE COOLING 1. Number of SG available for DHR 2. Refueling cavity filled 3. Number of trains RHR available 3. Number of trains RHR available 4. RCS level above REDUCED INVENTORY 4. RCS tevel above REDUCED INVENTORY 6. 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) 2. G-01 or G-02/A-05/B-03 available G-03 or G-04/A-06/B-04 available 1. Pressurizer level ≥20 percent w/head on 2. Refueling Cavity filled (see definition) 3. RCS level above RepUCCED INVENTORY 6. Independent off-site power sources above the top of the reactor vessel flange, upper internals removed and RCS time to boil ≥ 12 hours. 6. O-1) 1. Subtotal  Subtotal  Subtotal  Subtotal Condition RED ORANGE GREEN  GREEN  Subtotal Condition RED ORANGE				Subtotal	Condition
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) 1 0-1 RED  2. Number of boration paths (0-2) 2 2 2 ORANGE  3. No fuel motion (0-1) 1 3-4 VELLON  4. SR instrumentation operable (0-1) 1 5 GREEN  Cavity Boron concentration = 3003 ppm  Subtotal = 5   CORE COOLING  1. Number of SG available for DHR (0-2) 0 0-1 RED  2. Refueling cavity filled (0-1) 1 2 ORANGE  3. Number of Tains RHR available (0-2) 2 3 VELLON  4. RCS level above REDUCED INVENTORY (0-1) 1 4-5 GREEN  RCS TEMP =81*F; 34 days shutdown,  RCS Level = Refueling Height  RCS Time to Boil 35 hrs (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY  1. Independent off-site power sources available to 4-05 and 4-06 (totally independent at the 4160 V, 13.8 kV, and 345 kV levels) (0-2) 2 4-5 GREEN  G-03 or G-04/A-06/B-04 available (0-1) 1 1 Subtotal G-03 or G-04/A-0	1.				
(TRM 2.1) > 2200 ppm b.) For CSD and prior to RSD no fuel motion,			ī D		
b.) For CSD and prior to RSD no fuel motion,			LK		
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3. No fuel motion (0-1) 1 3-4 VELLOW GREEN  SR instrumentation operable (0-1) 1 5 GREEN  Cavity Boron concentration = 3003 ppm  Subtotal = 5   CORE COOLING  1. Number of SG available for DHR (0-2) 0 0-1 RED  2. Refueling cavity filled (0-1) 1 2 0 0 ANNGE  3. Number of trains RHR available (0-2) 2 3 4-5 GREEN  RCS TEMP =81°F; 34 days shutdown, Subtotal = 4  RCS Level above REDUCED INVENTORY (0-1) 1 4-5 GREEN  RCS Time to Boil 35 hrs (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY  1. Independent off-site power sources available to A-05 and A-05 (totally 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		RCS boron > boron concentration required by	OP 3C (0-1) 1		RED
4. SR instrumentation operable Cavity Boron concentration = 3003 ppm  Subtotal = 5  CORE COOLING 1. Number of SG available for DHR 2. Refueling cavity filled 3. Number of trains RHR available 4. RCS level above REDUCED INVENTORY 4. RCS Level above REDUCED INVENTORY 5. Subtotal = 4  RCS TIme to Boil 35 hrs (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 1. Independent off-site power sources available to 4.05 and 4.06 (totally independent at the 4160 V, 13.8 kV, and 345 kV levels) 2. G-01 or G-02/A-05/B-03 available G-03 or G-04/A-06/B-04 available to 23 ft above the top of the reactor vessel flange, upper internals removed and RCS time to boil ≥ 12 hours.    Subtotal = 5   Subtotal   Condition					ORANGE
Cavity Boron concentration = 3003 ppm			` '		
CORE COOLING   1. Number of SG available for DHR   (0-2)   0   0-1   RED	4.		(0-1)1	3	GREEN
1. Number of SG available for DHR (0-2) 0 0-1 RED 2. Refueling cavity filled (0-1) 1 2 ORANGE 3. Number of trains RHR available (0-2) 2 3 3 VILLOW 4. RCS level above REDUCED INVENTORY (0-1) 1 4-5 GREEN  RCS TEMP =81*F; 34 days shutdown, Subtotal = 4 RCS Temp = 81*F; 34 days shutdown, Subtotal = 4 RCS Time to Boil 35 hrs (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 1. Independent off-site power sources 1 1 RED available to A-05 and A-06 (totally 2 2 ORANGE independent at the 4160 V, 13.8 kV, 3 3 VILLOW and 345 kV levels) (0-2) 2 4-5 GREEN  2. G-01 or G-02/A-05/B-03 available (0-1) 1 1 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) 1 Subtotal = 5  INVENTORY Subtotal = 5  INVENTORY Subtotal Condition RED 1. Pressurizer level ≥20 percent w/head on (0-1) 0 2 ORANGE 2 Refueling Cavity filled (see definition) (0-3) 3 3 3 VILLOW 3 CREEN  3. RCS level above REDUCED INVENTORY (0-1) 1 4 GREEN  4. Makeup from VCT/BLENDER and/or RWST available (0-2) 0		Cavity Boron concentration - 3003 ppm	Subtotal =5_		
1. Number of SG available for DHR (0-2) 0 0-1 RED 2. Refueling cavity filled (0-1) 1 2 ORANGE 3. Number of trains RHR available (0-2) 2 3 3 VILLOW 4. RCS level above REDUCED INVENTORY (0-1) 1 4-5 GREEN  RCS TEMP =81*F; 34 days shutdown, Subtotal = 4 RCS Temp = 81*F; 34 days shutdown, Subtotal = 4 RCS Time to Boil 35 hrs (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 1. Independent off-site power sources 1 1 RED available to A-05 and A-06 (totally 2 2 ORANGE independent at the 4160 V, 13.8 kV, 3 3 VILLOW and 345 kV levels) (0-2) 2 4-5 GREEN  2. G-01 or G-02/A-05/B-03 available (0-1) 1 1 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) 1 Subtotal = 5  INVENTORY Subtotal = 5  INVENTORY Subtotal Condition RED 1. Pressurizer level ≥20 percent w/head on (0-1) 0 2 ORANGE 2 Refueling Cavity filled (see definition) (0-3) 3 3 3 VILLOW 3 CREEN  3. RCS level above REDUCED INVENTORY (0-1) 1 4 GREEN  4. Makeup from VCT/BLENDER and/or RWST available (0-2) 0		CORD COAT NO			
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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)  2. G-01 or G-02/A-05/B-03 available G-03 or G-04/A-06/B-04 available G-03 or G-04/A-06/B-04 available 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.  Subtotal = 5  INVENTORY  Subtotal Condition O-1 RED ORANGE  Refueling Cavity filled (see definition) Condition RED Refueling Cavity filled (see definition) RCS level above REDUCED INVENTORY Makeup from VCT/BLENDER and/or RWST available  (0-2) 0  RED  GREEN	RCS	S Time to Boil 35 hrs (Applicable at Cold of	or Retueting Snutdown)	····	<del></del>
available to A-05 and A-06 (totally independent at the 4160 V, 13.8 kV, and 345 kV levels)  2. G-01 or G-02/A-05/B-03 available (0-1) 1 G-03 or G-04/A-06/B-04 available (0-1) 1 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.    Inventory   Subtotal   Condition				Subtotal	Condition
independent at the 4160 V, 13.8 kV,  and 345 kV levels)  2. G-01 or G-02/A-05/B-03 available G-03 or G-04/A-06/B-04 available  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.  Subtotal = 5  INVENTORY  Subtotal  1. Pressurizer level ≥20 percent w/head on Refueling Cavity filled (see definition)	1.				
and 345 kV levels)  2. G-01 or G-02/A-05/B-03 available G-03 or G-04/A-06/B-04 available  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.    Subtotal = 5					ORANGE
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G-03 or G-04/A-06/B-04 available (0-1) 1  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) 1  Subtotal = 5  INVENTORY  Subtotal Condition RED  1. Pressurizer level ≥20 percent w/head on (0-1) 0 2 ORANGE  2. Refueling Cavity filled (see definition) (0-3) 3 3 3  RCS level above REDUCED INVENTORY (0-1) 1 4 GREEN  4. Makeup from VCT/BLENDER and/or RWST available (0-2) 0	2.			4-3	GREEK
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)1				·	
internals removed and RCS time to boil ≥ 12 hours. (0-1) 1  Subtotal = 5  INVENTORY  Subtotal Condition 0-1 RED  1. Pressurizer level ≥20 percent w/head on (0-1) 0 2 ORANGE  2. Refueling Cavity filled (see definition) (0-3) 3 3 3  3. RCS level above REDUCED INVENTORY (0-1) 1 4 GREEN  4. Makeup from VCT/BLENDER and/or RWST available (0-2) 0	3.	G-05 available, Reactor Cavity filled to ≥ 23 ft	` /		
Subtotal = 5  INVENTORY  1. Pressurizer level ≥20 percent w/head on (0-1) 0 2 ORANGE 2. Refueling Cavity filled (see definition) (0-3) 3 3 VELLOW 3. RCS level above REDUCED INVENTORY (0-1) 1 4 GREEN 4. Makeup from VCT/BLENDER and/or RWST available (0-2) 0			rs (N-1) 1		
INVENTORY  Subtotal Condition 0-1 RED  Pressurizer level ≥20 percent w/head on (0-1) 0 2 ORANGE  Refueling Cavity filled (see definition) (0-3) 3 3  RCS level above REDUCED INVENTORY (0-1) 1 4 GREEN  Makeup from VCT/BLENDER and/or RWST available (0-2) 0		menus removed and root lime to bon 2 12 not	`		
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1. Pressurizer level ≥20 percent w/head on (0-1) 0 2 ORANGE 2. Refueling Cavity filled (see definition) (0-3) 3 3 3. RCS level above REDUCED INVENTORY (0-1) 1 4 GREEN 4. Makeup from VCT/BLENDER and/or RWST available (0-2) 0		INVENTORY			
2. Refueling Cavity filled (see definition) (0-3) 3 3 3 3. RCS level above REDUCED INVENTORY (0-1) 1 4 GREEN 4. Makeup from VCT/BLENDER and/or RWST available (0-2) 0	1	December land 220	(0.1) A		
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4. Makeup from VCT/BLENDER and/or RWST available (0-2)0			(0-3) <u>3</u> (0-1) 1		
and/or RWST available (0-2) 0			(0-1)1_	•	GALLE
Subtotal =4			(0-2)0_		
			Subtotal = 4		
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in accordance with the Freedom of Information Act, exemptions # Page FOIA-10A-2004-0283

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References: NP 10.3.6

NP 10.2.1

#### Point Beach Nuclear Plant

#### PBNP SHUTDOWN SAFETY ASSESSMENT AND FIRE CONDITION CHECKLIST

	CONTAINMENT		Subtotal	Condition	
1.	Containment integrity (TS 15.1.D) {Containment		0	RED	
	Operable {ITS TS 3.6.1} set	$(0 \text{ or } 4) \qquad 0$	1	ORANGE	
2.	Containment Closure CL-1E maintained		2-3	VELLOW	
	and closure < time to boil	(0 or 2) 2	4-5-6	GREEN	
3.	No fuel motion	(0-1) 1			
4.	DHR Capability:	` ′ ——			
	- 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) 1			
	Subtotal = 4				
	•				

# 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 2	RED ORANGE
	- G-02 or G-01 via 2B-32	(0-1) NA	3	YELLOW
	-(*) an independent off-site power source different than that for		4-5	GREEN
	Train B below	(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) NA		
	-(*) 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 T	emperatures:	Subtotal = NA		
NW	NA °F	<del> </del>		
SE	NA °F			
SFP A	verage Temp NA °F			
SFP T	ime to Boil NA			

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

#### Point Beach Nuclear Plant

## PBNP SHUTDOWN SAFETY ASSESSMENT AND FIRE CONDITION CHECKLIST

# **OUTAGE SAFETY ASSESSMENT**

UNIT:	1	DATE:	May 7, 2004	TIME:	0200
				_	

### **KEY SAFETY FUNCTIONS:**

**REACTIVITY:** 

**GREEN** 

**CORE COOLING:** 

GREEN

**POWER AVAILABLE:** 

GREEN

**INVENTORY:** 

**GREEN** 

**CONTAINMENT:** 

**GREEN** 

SFP COOLING:

NA

## PROTECTED EQUIPMENT:

**COMMENTS:** 

RCS Time to Boil is 35 hours

Fire Protection Condition IV: Credit is taken for fire rounds as fire prevention contingency

References: NP 10.3.6

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NP 10.2.1