### Point Beach Nuclear Plant

vec 9-28

## PBNP SHUTDOWN SAFETY ASSESSMENT AND FIRE CONDITION CHECKLIST

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 ke GREEN except spent fuel pool cooling.  CEY SAFETY FUNCTION CRITERIA: No/False = 0, Yes/True = 1 through 4  REACTIVITY  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) 1 0-1  2. Number of boration paths (0-2) 2 2 2  3. No fuel motion (0-1) 1 3-4  4. SR instrumentation operable (0-1) 1 5  CORE COOLING  1. Number of SG available for DHR (0-2) 0 0-1  2. Refueling cavity filled (0-1) 0 2  3. Number of trains RHR available (0-2) 2 3  4. RCS level above REDUCED INVENTORY (0-1) 1 4-5  RCS Temperature = 94°F; 53 days shutdown RCS Level > 55 % Subtotal = 3  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY  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) (0-2) 2 4-5  2. G-01 or G-02/A-05/B-03 available (0-1) 1	RED ORANGE YELLOW GREEN
### SAFETY FUNCTION CRITERIA: No/False = 0, Yes/True = 1 through 4    REACTIVITY	RED ORANGE YELLOW GREEN ORANGE YELLOW
REACTIVITY   Subtot	RED ORANGE YELLOW GREEN  Condition RED ORANGE YELLOW
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) 1 0-1 2. Number of boration paths (0-2) 2 2 2 3. No fuel motion (0-1) 1 3-4 4. SR instrumentation operable (0-1) 1 5  CORE COOLING 1. Number of SG available for DHR (0-2) 0 0-1 2. Refueling cavity filled (0-1) 0 2 3. Number of trains RHR available (0-2) 2 3 4. RCS level above REDUCED INVENTORY (0-1) 1 4-5  RCS Temperature = 94°F; 53 days shutdown RCS Level > 55 % Subtotal = 3  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 1. Independent off-site power sources available to A-05 and A-06 (totally independent at the 4160 V, 13.8 kV, 3 and 345 kV levels) (0-2) 2 4-5	RED ORANGE YELLOW GREEN  Condition RED ORANGE YELLOW
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2.       Number of boration paths       (0-2)       2       2         3.       No fuel motion       (0-1)       1       3-4         4.       SR instrumentation operable       (0-1)       1       5         Subtotal = 5         CORE COOLING       Subtotal = 5         1.       Number of SG available for DHR       (0-2)       0       0-1         2.       Refueling cavity filled       (0-1)       0         3.       Number of trains RHR available       (0-2)       2       3         4.       RCS level above REDUCED INVENTORY       (0-1)       1       4-5         RCS Temperature = 94°F; 53 days shutdown         RCS Level > 55 %       Subtotal = 3         RCS Time to Boil106 min(Applicable at Cold or Refueling Shutdown)         POWER AVAILABILITY       Subtotal         1.       Independent off-site power sources       1         available to A-05 and A-06 (totally independent at the 4160 V, 13.8 kV, and 345 kV levels)       3	ORANGE YELLOW GREEN  Condition RED ORANGE YELLOW
3. No fuel motion 4. SR instrumentation operable  CORE COOLING 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. RCS Temperature = 94°F; 53 days shutdown 6. RCS Level > 55 % 6. Subtotal = 3 6. RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 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)  (0-2) 2 4-5	YELLOW GREEN  Condition RED ORANGE YELLOW
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 CST emperature = 94°F; 53 days shutdown RCS Level > 55 %  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 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)  CORE COOLING Subtot  Subtot  Subtotal = 5  Subtotal = 3  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)	nl Condition RED ORANGE YELLOW
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 6. Subtotal = 3  RCS Temperature = 94°F; 53 days shutdown RCS Level > 55 %  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 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. Over Available (0-2) 2 4-5	RED ORANGE YELLOW
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2. Refueling cavity filled 3. Number of trains RHR available 4. RCS level above REDUCED INVENTORY 6. RCS Temperature = 94°F; 53 days shutdown RCS Level > 55 %  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 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 3  3 4-5	ORANGE YELLOW
3. Number of trains RHR available (0-2) 2 3 4. RCS level above REDUCED INVENTORY (0-1) 1 4-5  RCS Temperature = 94°F; 53 days shutdown RCS Level > 55 % Subtotal = 3  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY 1. Independent off-site power sources 1 1 2 2 3 2 3 4-5 3 3 3 3 3 3 3 3 3 3 4 5 kV levels)	YELLOW
4. RCS level above REDUCED INVENTORY (0-1) 1 4-5  RCS Temperature = 94°F; 53 days shutdown  RCS Level > 55 % Subtotal = 3  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY Subtotal  1. Independent off-site power sources 1  available to A-05 and A-06 (totally 2  independent at the 4160 V, 13.8 kV, 3  and 345 kV levels) (0-2) 2 4-5	
RCS Temperature = 94°F; 53 days shutdown RCS Level > 55 %  Subtotal = 3 RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY  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)  Subtotal  2 4-5	OKLEN .
RCS Level > 55 %  RCS Time to Boil 106 min. (Applicable at Cold or Refueling Shutdown)  POWER AVAILABILITY  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)  Subtota  2 4-5	
POWER AVAILABILITY  1. Independent off-site power sources 1 available to A-05 and A-06 (totally 2 independent at the 4160 V, 13.8 kV, 3 and 345 kV levels)  Output  Ou	<u>.</u>
1. Independent off-site power sources 1 available to A-05 and A-06 (totally 2 independent at the 4160 V, 13.8 kV, 3 and 345 kV levels) (0-2) 2 4-5	
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available to A-05 and A-06 (totally independent at the 4160 V, 13.8 kV, and 345 kV levels) (0-2) 2 4-5	RED
and 345 kV levels) (0-2) 2 4-5	ORANGE
· · · · · · · · · · · · · · · · · · ·	VELLOW
2. G-01 or G-02/A-05/B-03 available (0-1) 1	GREEN
· · · · · · · · · · · · · · · · · · ·	
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)0	
Subtotal = 4	
Subtotal =	<u>.</u>
INVENTORY Subtots 0-1	
1. Pressurizer level ≥20 percent w/head on (0-1) 0 2	RED ORANGE
2. Refueling Cavity filled (see definition) (0-3) 0 3	YELLOW
3. RCS level above REDUCED INVENTORY (0-1) 1 4	GREEN
4. Makeup from VCT/BLENDER	·
and/or RWST available (0-2) 2	
Subtotal = 3	
Information in this record was deleted	
in accordance with the Freedom of Information	V-27

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References: NP 10.3.6

NP 10.2.1

### PBNP SHUTDOWN SAFETY ASSESSMENT AND FIRE CONDITION CHECKLIST

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

	availability (*).			
1.	"A" SED cooling nump available		Subtotal 0-1	Condition RED
1.	"A" SFP cooling pump available with power available from:		2	
	- G-02 or G-01 via 2B-32	(0-1) NA	3	ORANGE YELLOW
	-(*) an independent off-site power	(0-1) <u>1(A</u>	4-5	GREEN
	source different than that for		4-2	GREEN
	Train B below	(0-1) NA		
2.	"B" SFP cooling pump available	(0.1)		
	with power available from:			
	- G-03 or G-04 via 1B-42	(0-1) NA		
	-(*) an independent off-site power	(4 3)		
	source different than that for			
	Train A above	(0-1) NA		
3.	Temporary power available to one SFP cooling	· · · · · ·		
•	pump, G-05 available, and SFP time to boil $\geq 12$			
	hours.	(0-1) <u>NA</u>		
SFP 1	Femperatures:	Subtotal = NA		
NW	NA °F			
SE	NA °F			
SFP A	Average Temp NA °F			
	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 curve based on 50 days post shutdown was conservatively used (CAP056964).

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NP 10.2.1

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

## **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.

EXIL

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