#### Point Beach Nuclear Plant

## PBNP SHUTDOWN SAFETY ASSESSMENT AND FIRE CONDITION CHECKLIST

	Whenever fuel has been removed from the reacted GREEN except spent fuel pool cooling.	n vesset <u>unu</u> rejueting		
EY S	SAFETY FUNCTION CRITERIA: No/False = 0, Yes/	True = 1 through 4		
1.	REACTIVITY  RCS Boron concentration = 3014 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,	20 (0.1)	Subtotal	Condition
2.	RCS boron > boron concentration required by OP Number of boration paths	$\begin{array}{ccc} 3C & (0-1) & \underline{1} \\ & (0-2) & \underline{2} \end{array}$	0-1 -2	RED ORANGE
3.	No fuel motion	$(0-1) \frac{2}{1}$	3-4	VELLOW
4.	SR instrumentation operable  Cavity Boron concentration = 3015 ppm	(0-1)1	5	GREEN
		Subtotal =5		<del></del>
	CORE COOLING		Subtotal	Condition
1.	Number of SG available for DHR	(0-2) 0	0-1	RED
2.	Refueling cavity filled	$(0-1)  \boxed{1}$	2	ORANGE
3. 4.	Number of trains RHR available RCS level above REDUCED INVENTORY	$(0-2)$ $\frac{2}{(0-1)}$ $\frac{1}{1}$	3 4-5	GREEN
RCS	Level = Refueling Height	Subtotal = 4		
RCS				
RCS	Level = Refueling Height Time to Boil 33 hrs (Applicable at Cold or R  POWER AVAILABILITY Independent off-site power sources		Subtotal	Condition RED
RCS RCS	Level = Refueling Height Time to Boil 33 hrs (Applicable at Cold or R  POWER AVAILABILITY Independent off-site power sources available to A-05 and A-06 (totally		1 2	RED ORANGE
RCS RCS	Level = Refueling Height Time to Boil 33 hrs (Applicable at Cold or R  POWER AVAILABILITY Independent off-site power sources available to A-05 and A-06 (totally independent at the 4160 V, 13.8 kV,	efueling Shutdown)	1 2 3	RED ORANGE
RCS RCS	Level = Refueling Height Time to Boil 33 hrs (Applicable at Cold or R  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)	efueling Shutdown)	1 2	RED ORANGE
RCS RCS	Level = Refueling Height Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 available	(0-2) 2 (0-1) 1	1 2 3	RED ORANGE
RCS RCS	Level = Refueling Height Time to Boil 33 hrs (Applicable at Cold or R  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)	efueling Shutdown)	1 2 3	RED ORANGE
RCS RCS	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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	(0-2) 2 (0-1) 1 (0-1) 1	1 2 3	RED ORANGE
RCS RCS	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 available G-03 or G-04/A-06/B-04 available G-05 available, Reactor Cavity filled to ≥ 23 ft	(0-2) 2 (0-1) 1	1 2 3	RED ORANGE
RCS RCS	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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.	(0-2) 2 (0-1) 1 (0-1) 1	1 2 3	RED ORANGE
1. 2. 3.	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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.  INVENTORY	(0-2)	1 2 3 4-5	RED ORANGE VELLOW GREEN
RCS RCS	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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.	(0-2) 2 (0-1) 1 (0-1) 1 Subtotal = 5	1 2 3 4-5 Subtotal 0-1	Condition RED
1. 2. 3.	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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.  INVENTORY Pressurizer level ≥20 percent w/head on	(0-2) 2 (0-1) 1 (0-1) 1 Subtotal = 5	1 2 3 4-5 Subtotal 0-1 2	Condition RED ORANGE
1. 2. 3. 1. 2.	Level = Refueling Height  Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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.  INVENTORY Pressurizer level ≥20 percent w/head on Refueling Cavity filled (see definition)	(0-2) 2 (0-1) 1 (0-1) 1 Subtotal = 5	1 2 3 4-5 Subtotal 0-1 2 3	Condition RED ORANGE VELLOW
1. 2. 3. 1. 2. 3.	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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.  INVENTORY Pressurizer level ≥20 percent w/head on Refueling Cavity filled (see definition) RCS level above REDUCED INVENTORY	(0-2) 2 (0-1) 1 (0-1) 1 Subtotal = 5	1 2 3 4-5 Subtotal 0-1 2	Condition RED ORANGE
1. 2. 3. 1. 2.	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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.  INVENTORY Pressurizer level ≥20 percent w/head on  Refueling Cavity filled (see definition) RCS level above REDUCED INVENTORY Makeup from VCT/BLENDER	(0-2) 2 (0-1) 1 (0-1) 1 Subtotal = 5 (0-1) 0 (0-3) 3 (0-1) 1	1 2 3 4-5 Subtotal 0-1 2 3	Condition RED ORANGE VELLOW
1. 2. 3. 1. 2. 3.	Time to Boil 33 hrs (Applicable at Cold or R  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) G-01 or G-02/A-05/B-03 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.  INVENTORY Pressurizer level ≥20 percent w/head on  Refueling Cavity filled (see definition) RCS level above REDUCED INVENTORY Makeup from VCT/BLENDER and/or RWST available	(0-2) 2 (0-1) 1 (0-1) 1 Subtotal = 5	1 2 3 4-5 Subtotal 0-1 2 3	Condition RED ORANGE VELLOW

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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 or 4) 0	1	ORANGE
2.	Containment Closure CL-1E maintained	· · · · · · · · · · · · · · · · · · ·	2-3	VELLOW
	and closure < time to boil	(0 or 2) <u>2</u>	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 (\*).

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

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

"A" Train RHR returned to service.
1B42 power down in progress.

PBF-1562 Revision 2 10/30/02 References: NP 10.3.6

#### Point Beach Nuclear Plant

## PBNP SHUTDOWN SAFETY ASSESSMENT AND FIRE CONDITION CHECKLIST

## **OUTAGE SAFETY ASSESSMENT**

UNIT:	1	DATE:	May 4, 2004	TIME:	1400

## **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 33 hours

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

PBF-1562 Revision 2 10/30/02 References: NP 10.3.6

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