

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

Date: April 25, 2004 Time: 1230 Preparer: Jon Leiker 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  |                |           |
| 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       |
| 2.         | Number of boration paths   | (0-2) <u>1</u> | 2         |
| 3.         | No fuel motion   | (0-1) <u>0</u> | 3-4       |
| 4.         | SR instrumentation operable  | (0-1) <u>1</u> | 5         |
| Subtotal = |  | <u>3</u>       |           |

RED  
~~ORANGE~~  
**YELLOW**  
~~GREEN~~

| CORE COOLING |                                   | Subtotal       | Condition |
|--------------|-----------------------------------|----------------|-----------|
| 1.           | Number of SG available for DHR    | (0-2) <u>0</u> | 0-1       |
| 2.           | Refueling cavity filled           | (0-1) <u>1</u> | 2         |
| 3.           | Number of trains RHR available    | (0-2) <u>2</u> | 3         |
| 4.           | RCS level above REDUCED INVENTORY | (0-1) <u>1</u> | 4-5       |
| Subtotal =   |                                   | <u>4</u>       |           |

RCS TEMP = 86°F; 22 days shutdown,  
RCS Level = Refueling Height  
RCS Time to Boil 22.5 hrs (Applicable at Cold or Refueling Shutdown)

RED  
ORANGE  
**YELLOW**  
**GREEN**

| 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)                         | (0-2) <u>2</u> | 1         |
| 2.                 | G-01 or G-02/A-05/B-03 available  | (0-1) <u>1</u> | 2         |
|                    | G-03 or G-04/A-06/B-04 available  | (0-1) <u>1</u> | 3         |
| 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>1</u> | 4-5       |
| Subtotal =         |   | <u>5</u>       |           |

RED  
ORANGE  
**YELLOW**  
**GREEN**

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

RED  
ORANGE  
**YELLOW**  
**GREEN**

Information in this record was deleted in accordance with the Freedom of Information Act, exemptions 4

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

| 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<br>2(3) | <del>ORANGE</del><br><b>YELLOW</b> |
| 3.                  | No fuel motion (0-1) <u>0</u>  | 4-5-6     | <del>GREEN</del>                   |
| 4.                  | DHR Capability:  |           |                                    |
|                     | - cavity flooded and internals out ✓<br>OR   |           |                                    |
|                     | - at least one SG available<br>OR  |           |                                    |
|                     | - one fan cooler with Equip hatch installed and personnel hatches capable of being shut (0-1) <u>1</u> |           |                                    |
| Subtotal = <u>3</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 (0-1) <u>1</u>  | 2         | ORANGE                            |
|                     | -(*) an independent off-site power source different than that for Train B below (0-1) <u>1</u>                     | 3<br>4(5) | <del>YELLOW</del><br><b>GREEN</b> |
| 2.                  | "B" SFP cooling pump available with power available from:  |           |                                   |
|                     | - G-03 or G-04 via 1B-42 (0-1) <u>1</u>  |           |                                   |
|                     | -(*) an independent off-site power source different than that for Train A above (0-1) <u>1</u>                     |           |                                   |
| 3.                  | Temporary power available to one SFP cooling pump, G-05 available, and SFP time to boil ≥ 12 hours. (0-1) <u>0</u> |           |                                   |
| Subtotal = <u>4</u> |  |           |                                   |

SFP Temperatures:

NW 76 °F

SE 72 °F

SFP Average Temp 74 °F

SFP Time to Boil 21 hrs

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

Reactivity and Containment are **YELLOW** during fuel motion.

SFP is being monitored during refueling operation.

Scheduled CVCS work eliminated charging flow paths for reactivity and inventory.

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

UNIT:   1  

DATE:   April 25, 2004  

TIME:   1230  

**KEY SAFETY FUNCTIONS:**

|                  |        |
|------------------|--------|
| REACTIVITY:      | YELLOW |
| CORE COOLING:    | GREEN  |
| POWER AVAILABLE: | GREEN  |
| INVENTORY:       | GREEN  |
| CONTAINMENT:     | YELLOW |
| SFP COOLING:     | GREEN  |

**PROTECTED EQUIPMENT:**

**COMMENTS:**

RCS Time to Boil is 22.5 hours  
SFP Time to Boil is 21 hours (full core off-load is assumed)  
Fire Protection Condition IV: Credit is taken for fire rounds as fire prevention contingency

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